Report

Citywide Engineering and Traffic Survey

Antioch, California

February 6, 2015



This Citywide Engineering and Traffic Survey has been prepared under the direction of a licensed Civil Engineer. The licensed Civil Engineer attests to the technical information contained therein, and has judged the qualifications of any technical specialists providing engineering data, which recommendations, conclusions and decisions are based. These surveys conform to Sections 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommend speed limit appropriate to facilitate the safe and orderly movement of traffic.

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Introduction and Summary

Introduction



This report presents the results of the engineering and traffic survey conducted in 2014 by TJKM Transportation Consultants for the City of Antioch. The survey includes a summary of radar speed surveys, daily traffic counts, traffic accidents, and an analysis of roadway conditions for 68 identified street segments on arterial, collector, and local streets in Antioch.



The purpose of this survey is to evaluate if the speed limits currently posted on these segments are still appropriate for enforcement and to provide any recommended speed limit changes in accordance with current State of California regulations and guidelines. California Vehicle Code (CVC) Section 40802 requires that engineering and traffic surveys for speed limits should be conducted once every five, seven or ten years by governing municipalities in order to use radar or any other electronic device as a means of speed limit enforcement. Streets defined as "local streets and roads" as described in the amended subdivision (b) of Section 40802 "Speed Trap" of the CVC, effective January 1, 1982, are exempted.



Speed limits are established primarily for protecting the public from the unreasonable behavior of reckless, unreliable, or dangerous drivers. Speed limits are generally established at or near the 85th percentile speed. The 85th percentile speed, also referred to as the critical speed, is defined as the speed at or below which 85 percent of traffic is moving in free flow conditions. Speed limits established on this basis conform to the consensus of those who drive on the roadways as to what speed is reasonable and safe under normal driving conditions.



The current standard as described in the California Manual on Uniform Traffic Control Devices is to consider the speed limit at the nearest five miles per hour (mph) increment of the critical speed. However, a reduction of five mph is allowable to meeting needs of the community if justification is provided in accordance with the CVC through an engineering and traffic survey. Significant factors in determining reasonable and safe speed limits that are most appropriate to facilitate the orderly movement of traffic include prevailing speeds, accident rates, unexpected roadway conditions, and adjacent land uses, including residential and commercial densities. A more detailed discussion of current State regulations and guidelines is provided in the Speed Limit Recommendations section of the report. Applicable CVC Code sections are summarized in the California Vehicle Code Requirements section.



Summary



Based on current State regulations and guidelines, recommendations are made in this report for the 68 identified Antioch roadway segments. Copies of speed survey data and subsequent analysis are included in Appendix A and a speed survey summary sheet and final recommendation for each of the segment is included in Appendix B. The existing and recommended speed limits for each street segment are summarized in Table 1. A change in speed limit is recommended for the following four roadway segments:



1. Segment 34 - Hillcrest Avenue from 18th Street to Sunset Drive – 35 miles per hour (mph) to 40



- 2. Segment 39 L Street from 2nd Street to 10th Street 25mph to 30 mph
- 3. Segment 44 Lone Tree Way from SR-4 to Putnam Street 30 mph to 35 mph
- 4. Segment 57 Somerville Road from Buchanan Road to James Donlon Boulevard 35 mph to 45 mph



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The procedures used to formulate recommendations in this report meet the requirements of the California Vehicle Code (CVC) Section 627, Sections 22348 through 22413 under Division 11, Chapter 7 "Speed Laws", Section 40802, and others as referenced herein, and the 2014 Edition of the *California Manual on Uniform Traffic Control Devices* (California MUTCD). The California MUTCD is the amended version of the Federal Highway Administration MUTCD for use in California. Summarized below are applicable portions from the CVC related to preparation of an engineering and traffic survey for speed limits.



California Vehicle Code (CVC) Summary

CVC Section 235 – Business District: An area in which at least 50 percent of the properties are used for business for a minimum distance of 600 feet on one side or 300 feet on both sides of a highway.



CVC Section 515 – Residence District: An area outside of the Business District along a highway that has a minimum of 13 separate dwelling units on one side, or 16 on both sides within a distance of a quarter mile.



CVC Section 627 – Engineering and Traffic Survey: A survey of highway and traffic conditions in accordance with methods determined by the California Department of Transportation (Caltrans) for use by State and local authorities, which shall include consideration of prevailing speeds as determined by traffic engineering measurements, accident records, and highway, traffic, and roadside conditions not readily apparent to the driver. Local authorities may also consider residential density as defined in Section 515.



CVC Section 22349 – Maximum Speed Limits: Provides that no person shall drive a vehicle upon a highway at a speed greater than 65 mph. An exception to this, as stated in CVC Section 22356, is that Caltrans may increase the speed and these increases can only be made after consultation with the California Highway Patrol (CHP) and on the basis of an engineering and traffic survey.



CVC Section 22350 – Basic Speed Law: Provides that no person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent, and in no event at a speed that endangers the safety of persons or property. Reasonable is defined in Webster's New World Dictionary as "just, of sound judgment, and not excessive." Prudent is defined as "exercising sound judgment in practical matters, cautious and discreet in conduct, not rash and managing carefully."



CVC Section 22351 – Speed Law Violations: States that the speed of any vehicle upon a highway not in excess of the limits specified in Section 22352 of the CVC or established as authorized in the CVC is lawful unless clearly proved to be in violation of the Basic Speed Law. This same section also states that the speed of any vehicle upon a highway in excess of the prima facie speed limits in Section 22352 of the CVC or established as authorized in the CVC is unlawful unless the defendant establishes by competent evidence that the speed in excess of said limits did not constitute a violation of the Basic Speed Law at the time, place and under the conditions then existing.



CVC Section 22352 – Prima Facie Speed Limits: Establishes prima facie speed limits for Local Roads and Streets. The literal definition of the phrase "prima facie" is "first appearance". It is also defined at "first view" and "before investigation". Prima facie evidence is evidence sufficient to establish fact, or to raise presumption of fact, unless rebutted. Prima facie speed limits are those that are defined in CVC Section 22352. These speed limits shall be applicable unless changed as authorized in the CVC and, if so changed, only when signs have been erected giving notice thereof.



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A speed limit of 15 MPH applies at railroad crossings, at uncontrolled highway intersections with obstructed view, and on alleys. A speed limit of 25 mph applies on any highway other than State highways in any business or residence district, unless a different limit is established by procedures described in the CVC. The 25 mph limit also applies in school zones.



CVC Sections 22357 (Increase of Local Speed Limits to 65 mph) and 22358 (Decrease of Local Speed Limits): Authorizes local authorities to establish prima facie speed limits on streets and roads under their jurisdiction, on the basis of an engineering and traffic survey.



CVC Sections 22358.3 (Decrease on Narrow Streets) and 22358.4 (Decrease of Local Limits Near Schools or Senior Centers): Authorizes local agencies to reduce prima facie speed limits to 20 or 15 mph on narrow streets (with roadway width less than 25 feet), school zones, or senior centers on the basis of engineering and traffic surveys.



CVC Section 22358.5 – Downward Speed Zoning: Physical conditions such as width, curvature, grade, and surface conditions, or any other condition readily apparent to a driver, in the absence of other factors, would not require special downward speed zoning.



CVC Section 40802 (a)(2) - Prima Facie Speed Limits: Provides that prima facie speed limits established under CVC Sections 22352(b)(1), 22354, 22357, 22358, and 22358.3 may not be enforced by radar unless the speed limit has been justified by an engineering and traffic survey within the last five years. This CVC section does not apply to a local street, road or school zone. A local street or road is defined by the latest functional usage and federal- aid system maps or a street or road that primarily provides access to abutting residential property and meets the following criteria: (1) roadway is not more than 40 feet in width; (2) roadway is not more than one-half mile of uninterrupted length; and (3) roadway is not more than one travel lane in each direction.











Survey Methodology

Radar Checks



Traffic speed surveys were conducted in November 2014 with calibrated radar guns on days with fair weather, dry pavement, and clear visibility. An effort was made to ensure that the presence of radar survey equipment did not affect the speed of the traffic being surveyed. Locations were selected where the prevailing speeds were representative of the entire street segment. Most samples sizes for a particular segment included 100-200 vehicles. In rare instances, there were fewer than 100 vehicles in a given sample, but in no case were there fewer than 50 vehicles. Figure 1 shows the vicinity map of the study area and the study segments included as part of this engineering and traffic survey. The results of the radar speed survey data are shown in Appendix A.

Analysis of Speed Data

The radar speed survey data was compiled and analyzed to determine the 50th percentile speed, 85th percentile speed, 10 mph pace speed, the percent of vehicles observed within the 10 mph pace speed, the range of speed observed and the average speed for each surveyed location. A description of these terms is provided below:



- **50**th **Percentile Speed (Median Speed):** The speed above and below which 50 percent of the sample speeds were observed. This value indicates the speed that a driver may choose to drive without the influence of any speed limits, speed signs, or enforcement.
- **85**th **Percentile Speed (Critical Speed):** The speed at or below which 85 percent of the sample speeds were observed. The 85th percentile speed of a spot speed survey is the primary indicator of the appropriate speed limit for a section of the roadway.



- **10 mph Pace Speed:** The 10 mph increment (range) of speeds containing the greatest number of vehicles. In almost all cases, the 85th percentile speed and the recommended speed lie within the range, frequently in the middle to upper range of the interval. The percent of vehicles that fall within the pace speed is an indicator of the bunching of vehicular speeds. The number of observed vehicles within the 10 mph pace is often between 60 and 80 percent of the entire sample.
- **Average speed:** The average speed is simply the cumulative speed divided by the number of observed vehicles.



The speed limit for each study segment was recommended after determining the average speed, 85th percentile speed, pace speed and considering other significant factors such as existing land use, roadway design characteristics and accident rates (based on accident records for the last three years) for the study segment.



Traffic Counts

National Data & Surveying (NDS) conducted average daily traffic (ADT) counts at all study locations. These counts were used to determine the accident rates for each segment, which in turn was used as a factor in determining the appropriate speed limit for each segment. Figure 2 shows the map of ADT counts for the all the study segments.



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Collision Data



Collisions reported at study roadway segments were obtained from the Statewide Integrated Traffic Records System (SWITRS) database for a period of 5 years from January 2009 to December 2013. Collision rates are a significant factor in determining the appropriate speed limits. The speed survey summary sheet for each roadway segment included in Appendix B shows the number of collisions per year, accident rate, and average daily traffic. In addition, Table 1 shows a summary of the collision data for each roadway segment and Figure 3 shows the collision rate map for the study segments.

Driving the Streets



A final field check involves an experienced traffic engineer driving each street segment while "floating" with prevailing traffic to determine the speed of traffic that is reasonable from the driver's viewpoint. The traffic engineer evaluates the appropriateness of the 85th percentile speed and adds the perspective of human judgment to set the appropriate speed limit. Such factors as roadside development; the number and location of driveways; parked vehicles; emergency shoulder areas; schools and playgrounds; areas frequented by pedestrians; horizontal and vertical alignment of the roadway; intersection spacing, visibility and control; landscaping, and other less tangible factors, all contribute to establish the final recommended speed limit.



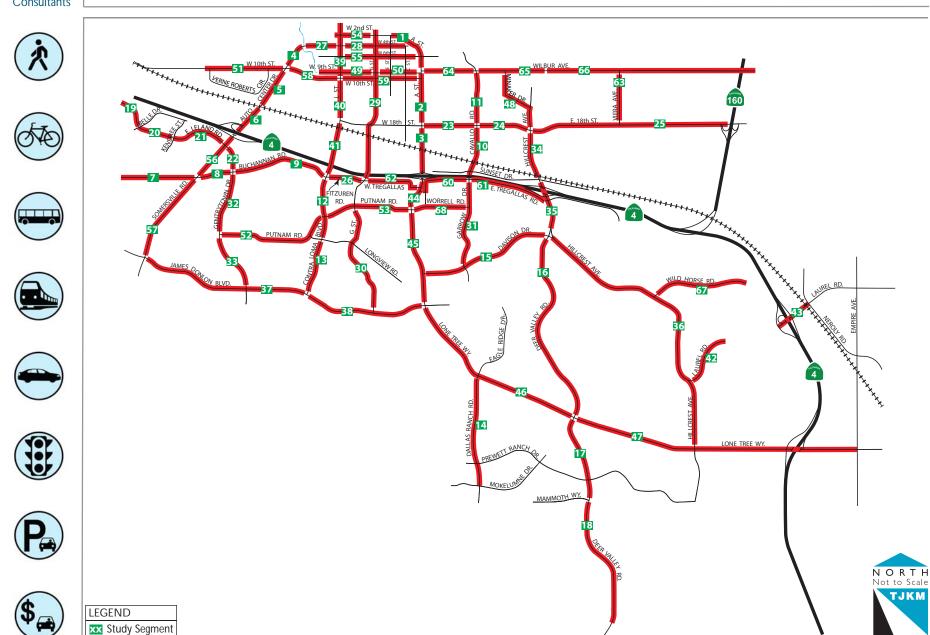








Vicinity Map and Study Segments



2014 Average Daily Traffic (ADT) Volumes

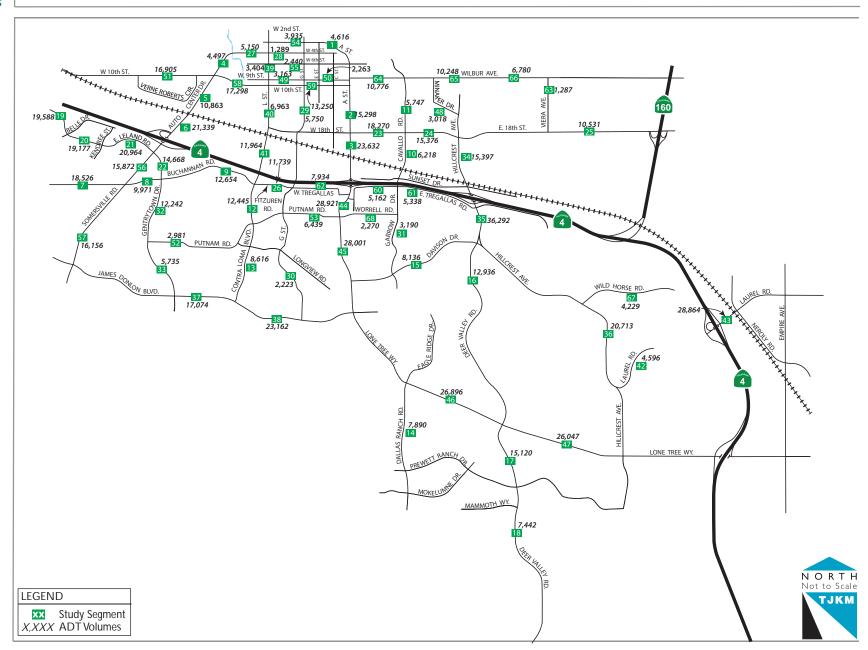
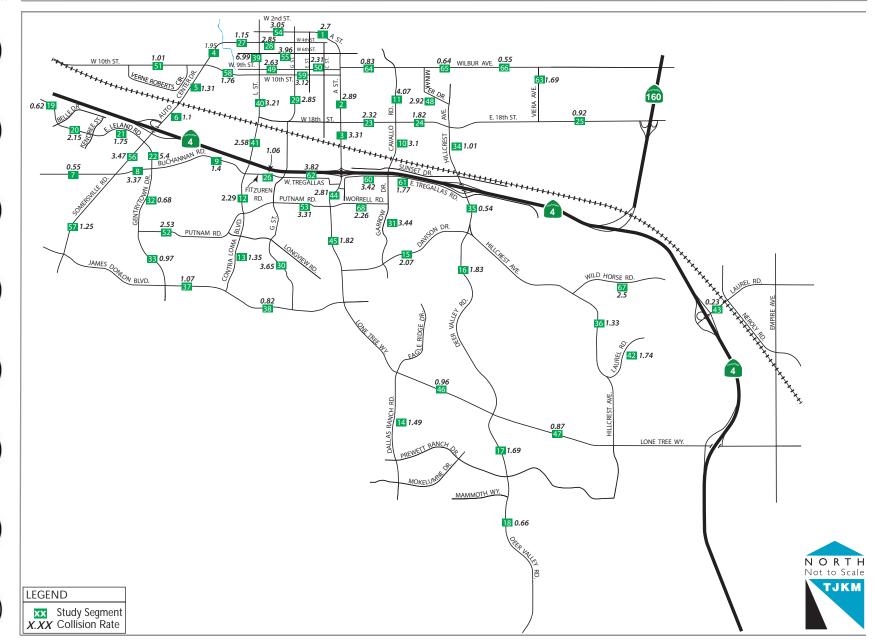


Figure 2

Collision Rate (January 2009 - December 2013)



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Speed Limit Recommendations



Establishment of speed limits can be controversial and requires a rational, defensible, and consistent evaluation process. Speed limits are typically set near the 85th percentile speed which establishes an upper limit of what is considered reasonable and prudent. With all of the statistics inherent to the engineering and traffic speed survey process, there is a great deal of engineering judgment required. Speed limits should be reasonable and realistic regardless of the results of the field studies. Reasonable speed limits are those at which responsible motorists would drive without enforcement and/or signage and depend on the voluntary compliance of the greater majority of motorists. Speed limits cannot be set arbitrarily low as this would create violators of the majority of drivers and would not command the respect of the public.



In 2004, in order to better conform to the intent of the federal standards as established in the Federal Highway Administration's Manual on Uniform Traffic Control Devices, and also to address some of the widespread disregard of the 5 miles per hour (mph) special downward speed zoning provision, the California Manual of Uniform Traffic Control Devices (CA MUTCD) replaced the Traffic Manual, and the speed zoning section of the Traffic Manual was changed to require rounding the 85th percentile to the nearest 5 mph increment rather than the lower 5 mph increment. This specific guideline revision resulted in raising certain street speed limits and had become a challenge to state and local jurisdictions.



In 2007, the California Traffic Control Devices Committee (CTCDC) ruled to approve a language change in the CA MUTCD to clarify how local speed limits should be set. The CTCDC was prompted to make this change due to major variations in the interpretation and application of the CA MUTCD Section 2B.13 "Speed Limit Sign (R2-1)" and to better distinguish the differences between "within" 5 mph of the 85th percentile speed and "round to the nearest" 5 mph of the 85th percentile speed for setting local speed limits. The changes included:



- Posted speed limits will be set "round to the nearest" 5 mph increment of the 85th percentile speed.
- Jurisdictions can lower this speed by an additional 5mph based on and justified by conditions and factors cited in the California Vehicle Code.



Caltrans ultimately issued a Traffic Operations Policy Directive (No. 09-04), effective July 1, 2009, which clearly defined these changes and incorporated new requirements into the CA MUTCD. Section 2B.13 of the 2014 Edition of the CA MUTCD now requires as a standard that a speed limit shall be established at the nearest 5 mph increment of the 85th percentile speed, except that the posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th percentile speed in compliance with CVC Sections 627 and 22358.5.



For cases in which the nearest 5 mph increment of the 85th percentile speed would require rounding up, the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed if no further reduction is used.

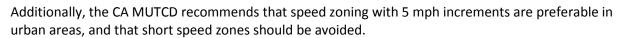


Section 2B.13 further states that justification for reducing speed limits can be based on residential density, pedestrian/bicyclist safety and other factors not readily apparent to drivers but essential to meet the traffic safety needs of the community. The following factors may be considered to adjust and determine the final speed limits:

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- Road characteristics, shoulder condition, grade, alignment, and sight distance
- 10 mph pace speed (a 10 mile range in speeds in which the highest number of data is recorded)
- Roadside development and environment
- Parking practices and bicycle/pedestrian activity
- Reported crash experience for at least a 12-month period





Based on the above guidelines, speed limit recommendations for the 68 street segments were established. Appendix B presents the results of the traffic survey analyses, which include prevailing speed data, accident history, traffic factors, and roadway conditions. The recommended speed limit for each street segment is also shown in Appendix B with a comment on the rationale for the recommendation. Figure 4 indicates the existing posted speed limit for all the study segments and Figure 5 shows the recommended speed limit for all segments.

Table 1 summarizes existing speed limit, critical speed and recommended speed limit for each street segment. Table 1 also summarizes data and analysis pertaining to the speed survey. The bolded rows indicate a change in the speed limit.



























Table 1: Engineering and Traffic Survey Summary

	sincering and Traine Survey Summary				Posted				Determinat	ion of the Re	commende	d Speed			
Road Segment Number	Road Segment Name	Roadway Type	Direction	Number of Lanes	Speed Limit (mph)	ADT	Number of Collisions (Jan 09 - Dec 13)	Length (mi)	10 MPH Pace	Number in Pace	% in Pace	50% tile Speed	85% tile Speed	Recmd. Speed (mph)	Posted Speed (mph)
1	A St. from E St. to 10th St.	Arterial	NB/SB	2	25	4,616	13	0.57	22-31	203	94	25	28	25	25
2	A St. from 10th St. to 18th St.	Arterial	NB/SB	4	30	15,298	35	0.43	27-36	193	92	31	34	30	30
3	A St. from 18th St. to SR-4	Arterial	NB/SB	4	30	23,632	67	0.47	26-35	196	93	31	34	30	30
4	Auto Center Dr. from 4th St. to 10th St. Arteria		NB/SB	4	35	4,497	7	0.44	32-41	131	91	35	39	35	35
5	Auto Center Dr. from 10th St. to SPRR	Arterial	NB/SB	4	35	10,863	11	0.42	31-40	197	92	35	38	35	35
6	Auto Center Dr. from SPRR to SR-4	Arterial	NB/SB	6	35	21,339	14	0.33	31-40	197	94	35	37	35	35
7	Buchanan Rd. from City Limits to Somersville Rd.	Arterial	EB/WB	2	45	18,526	12	0.64	44-53	190	85	48	52	45	45
8	Buchanan Rd. from Somersville Rd. to Gentrytown Dr.	Arterial	EB/WB	4	35	9,971	21	0.34	33-42	195	95	36	39	35	35
9	Buchanan Rd. from Gentrytown Dr. to Contra Loma Blvd.	Arterial	EB/WB	4	35	12,654	30	0.93	33-42	202	91	37	41	35	35
10	Cavallo Rd. from E. Treagallas Rd. to 18th St.	Collector	NB/SB	2	25	6,218	18	0.51	26-35	99	80	30	35	25	25
11	Cavallo Rd. from 18th St. to Wilbur Ave.	Collector	NB/SB	4	35	5,747	22	0.51	32-41	189	88	36	39	35	35
12	Contra Loma Blvd. from SR-4 to Longview Dr.	Arterial	NB/SB	4	35	12,445	36	0.69	33-42	199	95	37	40	35	35
13	Contra Loma Blvd. from Longview Dr. to James Donlon Blvd.	Arterial	NB/SB	4	35	8,616	11	0.52	31-42	204	99	36	38	35	35
14	Dallas Ranch Rd. from Lone Tree Wy. To Mokelomne Dr.	Arterial	NB/SB	4	45	7,890	22	1.03	37-46	138	91	42	45	45	45
15	Davison Dr. from Lone Tree Wy. To Hillcrest Ave.	Arterial	EB/WB	4	35	8,136	39	1.27	32-41	207	95	36	39	35	35
16	Deer Valley Rd. from Hillcrest Ave. to Lone Tree Wy.	Arterial	NB/SB	4	45	12,936	80	1.85	43-52	187	90	46	50	45	45
17	Deer Valley Rd. from Lone Tree Wy. To Mammoth Dr.	Arterial	NB/SB	4	45	15,120	38	0.81	40-52	203	98	45	48	45	45
18	Deer Valley Rd. from Mammoth Dr. to City Limits	Arterial	NB/SB	2	45	7,442	11	1.23	42-51	176	85	46	50	45	45
19	Delta Fair Blvd. from City Limits to Belle Dr.	Collector	EB/WB	4	35	19,588	6	0.27	31-40	188	92	36	39	35	35
20	Delta Fair Blvd. from Belle Dr. to Kendree St.	Arterial	EB/WB	4	30	19,177	25	0.33	29-38	176	85	35	38	30	30
21	Delta Fair Blvd. from Kendree St. to Somersville Rd.	Arterial	EB/WB	4	30	20,964	36	0.54	27-36	188	90	31	34	30	30
22	Delta Fair Blvd. from Somersville Rd. to Buchanan Rd.	Arterial	NB/SB	4	30	14,668	40	0.28	28-37	192	92	33	36	30	30
23	E. 18th St. from A St. to Cavallo Rd.	Arterial	EB/WB	4	30	18,270	39	0.50	29-38	149	93	33	36	30	30

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					Posted				Determina	tion of the Re	commende	d Speed			
Road Segment Number	Road Segment Name	Roadway Type	Direction	Number of Lanes	Speed Limit (mph)	ADT	Number of Collisions (Jan 09 - Dec 13)	Length (mi)	10 MPH Pace	Number in Pace	% in Pace	50% tile Speed	85% tile Speed	Recmd. Speed (mph)	Posted Speed (mph)
24	E. 18th St. from Cavallo Rd. to Hillcrest Ave.	Arterial	EB/WB	4	35	15,376	26	0.51	33-42	190	86	37	41	35	35
25	E. 18th St. from Hillcrest Ave. to City Limits	Arterial	EB/WB	4	45	10,531	34	1.93	37-59	187	81	46	50	45	45
26	Fitzuren Rd. from G St. to Contra Loma Blvd.	Local	EB/WB	2	30	11,739	8	0.35	28-37	186	86	32	37	30	30
27	W. 4th St. from Somersville Rd. to L St.	Collector	EB/WB	4	35	5,150	5	0.46	30-39	124	89	34	38	35	35
28	W. 4th St. from L St. to C. St.	Collector	EB/WB	2	25	1,289	4	0.60	18-27	108	92	23	26	25	25
29	G St. from 2nd St. to W. Tregallas Rd.	Collector	NB/SB	2	25	5,750	41	1.37	22-31	127	86	26	31	25	25
30	G St. from Putnam St. to James Donlon Blvd.	Collector	NB/SB	2	25	2,223	16	1.08	23-32	117	84	29	33	25	25
31	Garrow Dr. from E. Tregallas Rd to Davison Dr.	Collector	NB/SB	2	25	3,190	17	0.85	21-30	105	93	25	29	25	25
32	Gentrytown Dr. from Buchanan Rd. to Putnam St.	Collector	NB/SB	2	25	12,242	9	0.59	27-36	185	89	32	35	25	25
33	Gentrytown Dr. from Putnam St. to James Donlon Blvd.	Collector	NB/SB	2	25	5,735	6	0.59	25-34	138	85	31	34	25	25
34	Hillcrest Ave. from 18th St. to Sunset Dr.	Arterial	NB/SB	4	35	15,397	13	0.46	35-44	186	84	39	43	40	35
35	Hillcrest Ave. from Sunset Dr. to Davison Dr.	Arterial	NB/SB	6	45	36,292	20	0.55	36-45	194	93	40	44	45	45
36	Hillcrest Ave. from Davison Dr. to Lone Tree Wy.	Arterial	NB/SB	4	45	20,713	93	1.85	42-51	212	90	46	49	45	45
37	James Donlon Blvd. from Somersville Rd. to Contra Loma Blvd.	Arterial	EB/WB	4	40	17,074	52	1.56	37-46	193	93	42	44	40	40
38	James Donlon Blvd. from Contra Loma Blvd. to Lone Tree Wy.	Arterial	EB/WB	4	40	23,162	54	1.56	38-47	196	92	42	45	40	40
39	L St. from 2nd St. to 10th St.	Arterial	NB/SB	4	25	3,404	17	0.39	29-38	99	85	33	38	30	25
40	L St. from 10th St. to 18th St.	Arterial	NB/SB	2	35	6,963	16	0.39	30-39	190	91	35	38	35	35
41	L St. from 18th St. to SR-4	Arterial	NB/SB	4	35	11,964	25	0.44	31-40	196	94	34	37	35	35
42	Laurel Rd. from Hillcrest Ave. to End	Arterial	NB/SB	4	45	4,596	8	0.55	41-50	197	94	46	48	45	45
43	Laurel Rd. from SR-4 to City Limits	Arterial	NB/SB	6	45	28,864	4	0.33	42-51	210	92	46	49	45	45
44	Lone Tree Wy. From SR-4 to Putnam St.	Arterial	NB/SB	4	30	28,921	49	0.33	33-42	210	95	37	40	35	30
45	Lone Tree Wy. From Putnam St. to James Donlon Blvd.	Arterial	NB/SB	4	35	28,001	84	0.91	35-44	182	86	40	43	35	35
46	Lone Tree Wy. From James Donlon Blvd. to Deer Valley Rd.	Arterial	NB/SB	5	45	26,896	85	1.80	36-45	178	81	40	45	45	45
47	Lone Tree Wy. From Deer Valley Rd. to City Limits	Arterial	EB/WB	6	45	25,965	106	2.56	43-52	194	94	46	49	45	45

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					Posted				Determinat	ion of the Re	commende	d Speed			
Road Segment Number	Road Segment Name	Roadway Type	Direction	Number of Lanes	Speed Limit (mph)	ADT	Number of Collisions (Jan 09 - Dec 13)	Length (mi)	10 MPH Pace	Number in Pace	% in Pace	50% tile Speed	85% tile Speed	Recmd. Speed (mph)	Posted Speed (mph)
48	Minaker/13th/Hillcrest from Wilbur Ave. to 18th St.	Collector	NB/SB	2	25	3,018	11	0.68	24-33	127	89	29	32	25	25
49	W. 9th St. from O St. to G St.	Collector	EB/WB	2	25	3,163	8	0.53	23-32	93	82	27	32	25	25
50	W. 9th St. from G St. to A St.	Collector	EB/WB	2	25	2,263	4	0.42	20-29	92	88	24	28	25	25
51	Pittsburg-Antioch (W. 10th St) from City Limits to Auto Center Dr.	Arterial	EB/WB	2	50	16,095	22	0.74	42-51	177	78	46	51	50	50
52	Putnam St. from Gentrytown Dr. to Contra Loma Blvd.	Collector	EB/WB	2	25	2,981	15	1.09	27-36	93	81	31	35	25	25
53	Putnam St. from Contra Loma Blvd. to Lone Tree Wy.	Collector	EB/WB	2	25	6,439	32	0.82	26-35	118	81	31	35	25	25
54	W. 2nd St. from L St. to G St.	Collector	EB/WB	2	25	3,935	7	0.32	16-25	114	93	20	23	25	25
55	W. 6th St. from L St. to A St.	Local	EB/WB	2	25	2,440	13	0.74	21-30	106	91	25	29	25	25
56	Somersville Rd. from SR-4 to Buchanan Rd.	Arterial	NB/SB	4	35	15,872	54	0.54	24-33	192	89	29	32	35	35
57	Somersville Rd. from Buchanan Rd. to James Donlon Blvd.	Arterial	NB/SB	2/4	35	16,156	33	0.90	42-51	180	88	46	50	45	35
58	W. 10th St. from Auto Center Dr. to L St.	Arterial	EB/WB	4	35	17,298	30	0.54	33-42	188	89	37	41	35	35
59	W. 10th St. from L St. to A St.	Collector	EB/WB	2	25	13,250	56	0.74	23-32	207	96	27	30	25	25
60	E. Tregallas Rd. from Lone Tree Wy. To Garrow Dr.	Local	EB/WB	2	25	5,162	18	0.56	28-37	182	84	32	36	25	25
61	E. Tregallas Rd. from Garrow Dr. to Hillcrest Ave.	Local	EB/WB	2	35	5,338	13	0.76	33-42	163	79	38	43	35	35
62	W. Tregallas Rd. from G St. to Lone Tree Wy.	Local	EB/WB	2	25	7,934	31	0.56	24-33	192	90	29	32	25	25
63	Viera Ave. from Wilbur Ave. to 18th St.	Collector	NB/SB	2	25	1,287	2	0.50	29-38	70	67	33	38	25	25
64	Wilbur Ave. from A St. to Cavallo Rd.	Arterial	EB/WB	4	40	10,766	8	0.49	36-45	197	91	40	44	40	40
65	Wilbur Ave. from Cavallo Rd. to 1600 ft. east of Minaker Dr.	Arterial	EB/WB	4	40	10,248	7	0.59	36-45	192	93	40	44	40	40
66	Wilbur Ave. from 1600 ft. east of Minaker Dr. to City Limits	Arterial	EB/WB	2	45	6,780	5	0.74	41-50	178	86	45	49	45	45
67	Wild Horse Rd. from Hillcrest Ave. to Slatten Ranch Rd.	Collector	EB/WB	4	45	4,229	17	0.88	40-49	106	98	45	47	45	45
68	Worrell Rd. from Lone Tree Wy. To Garrow Dr.	Collector	EB/WB	2	25	2,270	5	0.53	21-30	109	91	26	29	25	25

Report - City of Antioch 2014 Traffic & Engineering Study

Existing Speed Limits

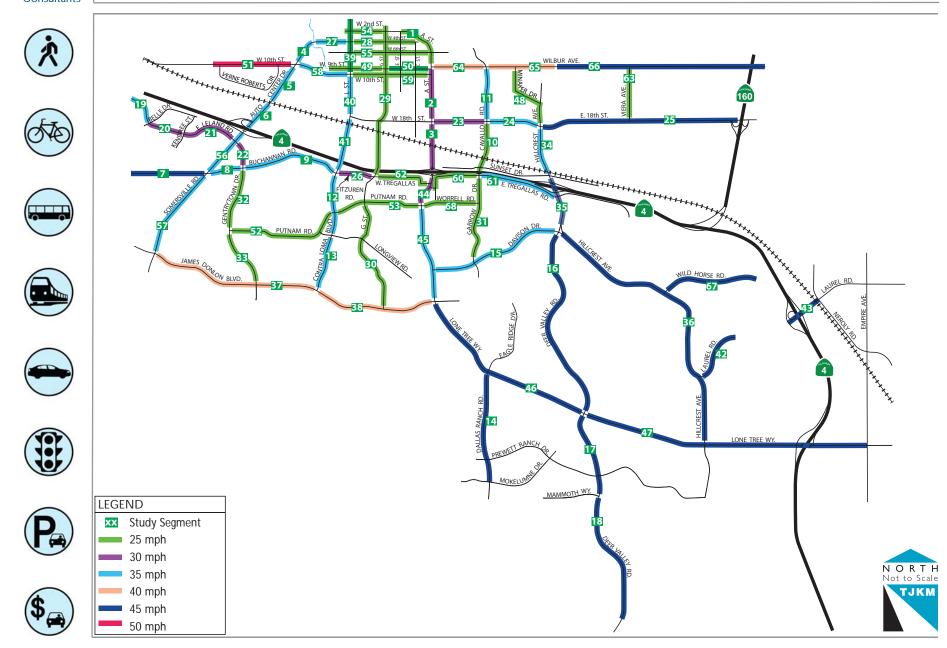


Figure 4

Recommended Speed Limits

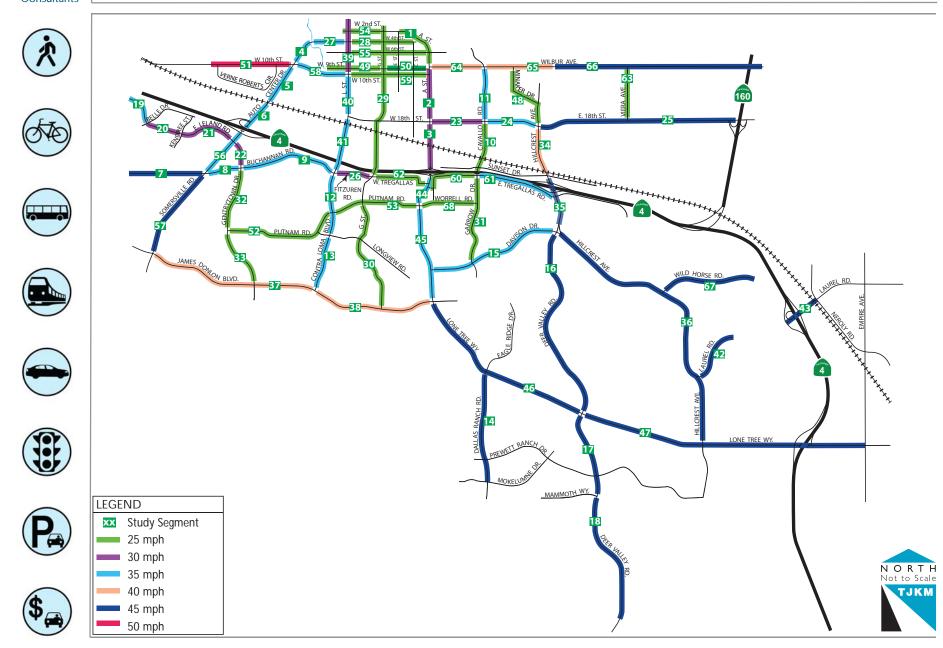


Figure 5



Study Participants

TJKM Transportation Consultants

Nayan Amin Project Manager

Jeff Lacap Project Engineer

Xiaonan Zhou Project Engineer

Sandeep Paparaju Project Engineer

Michelle Macer Word Processing

Dan Harrison Graphics



Data Collection

Bill Nichols

National Data Services

Brian Nichols

National Data Services



Persons Consulted

Lynne Filson City of Antioch











Appendix A – Detailed Speed Survey Forms















Segment #1: A St. between E St. to 10th St.

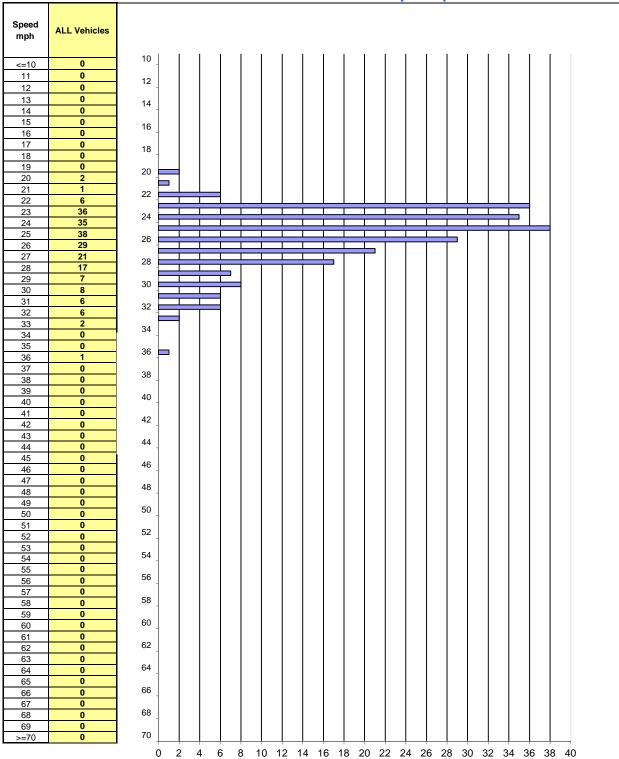
City of Antioch

Survey Time: 1245-1320 Street Width: 28 Ft

DATE: 11/6/2014 Location: 710 A Street

DAY: Thursday Posted Speed: 25 MPH Project #: 14-7726-001

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
			50th	85th	10 MPH		Percent in						
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	215	20-36	25 mph	28 mph	22 - 31	203	94%	1% / 3	5% / 9				

Segment #2: A St. between 10th St. to 18th St.

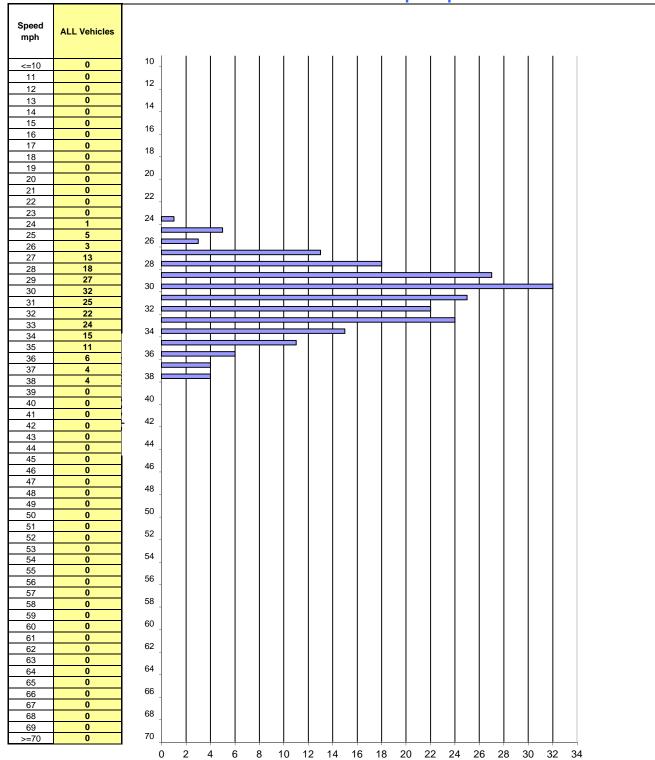
City of Antioch

Survey Time: 1200-1240 Street Width: 52 Ft

DATE: 11/19/2014 Location: 1513 A Street

DAY: Wednesday Posted Speed: 30 MPH Project #: 14-7726-002

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
			50th	85th	10 MPH		Percent in						
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	210	24-38	31 mph	34 mph	27 - 36	193	92%	4% / 9	4% / 8				

Segment #3: A St. between 18th St. to SR-4

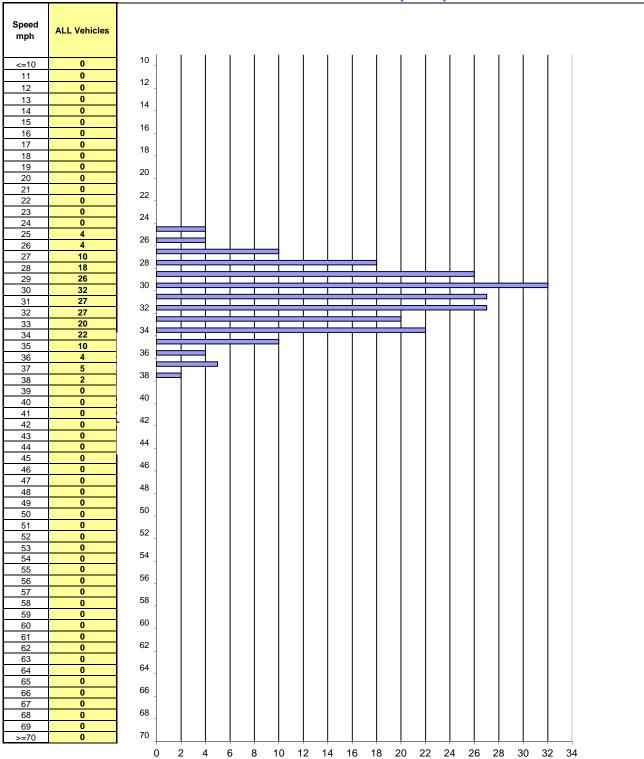
City of Antioch

Survey Time: 1300-1350 Street Width: 58 Ft

DATE: 11/19/2014 Location: 1927 A Street

DAY: Wednesday Posted Speed: 30 MPH Project #: 14-7726-003

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
			50th	85th	10 MPH		Percent in						
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	211	25-38	31 mph	34 mph	26 - 35	196	93%	1% / 4	6% / 11				

Segment 4: Auto Center Dr. between 4th St. and 10th St.

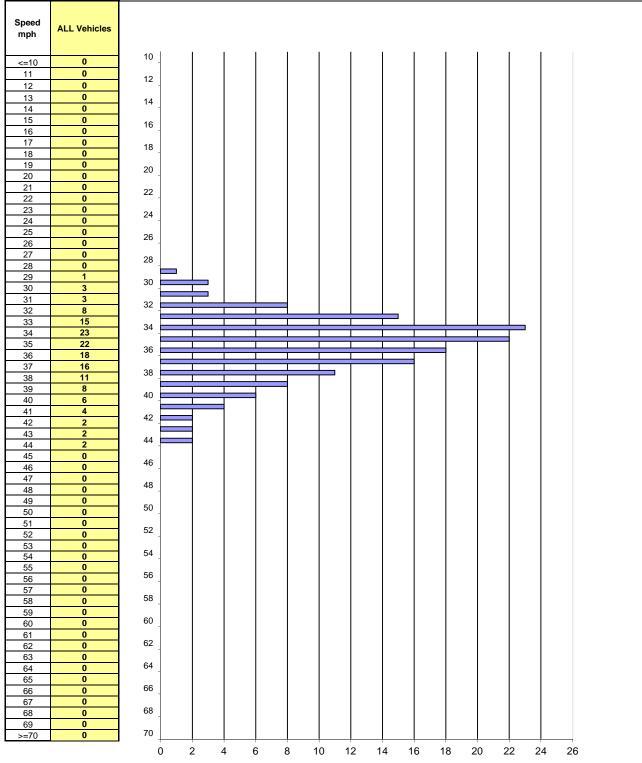
City of Antioch

Survey Time: 1320-1420 Street Width: 62 Ft

DATE: 11/10/2014 Location: Auto Center Drive mid block between 10th Street and 6th Street

DAY: Monday Posted Speed: 35 MPH Project #: 14-7726-004

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS												
			50th	85th	10 MPH		Percent in						
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	144	29-44	35 mph	39 mph	32 - 41	131	91%	4% / 7	5% / 6				

Segment #5: Auto Center Dr. between 4th St. and 10th St.

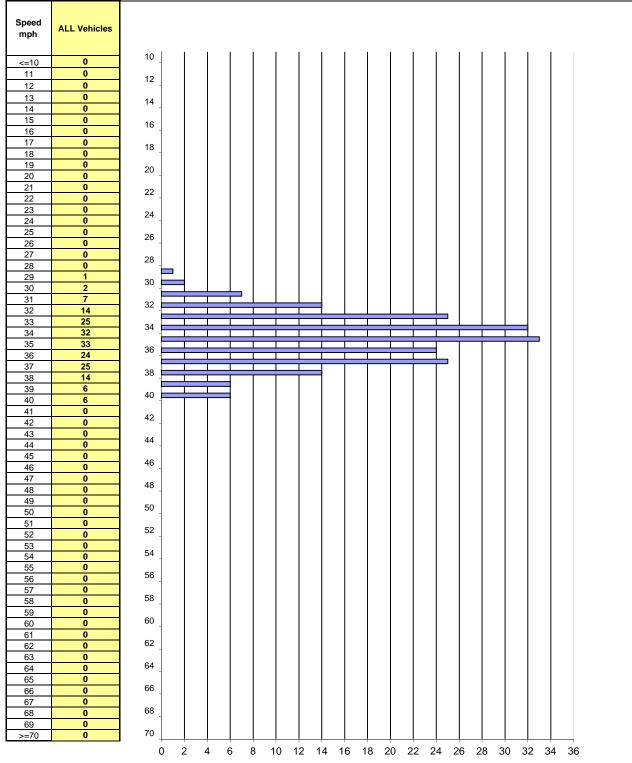
City of Antioch

Survey Time: 0900-0940 Street Width: 60 Ft

DATE: 11/7/2014 Location: 1553 Auto Center Drive

DAY: Friday Posted Speed: 35 MPH Project #: 14-7726-005

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
			50th	85th	10 MPH		Percent in						
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	189	29-44	35 mph	37 mph	31 - 40	186	98%	1% / 3	0% / 0				

Segment #6: Auto Center Dr. between SPRR and SR-4

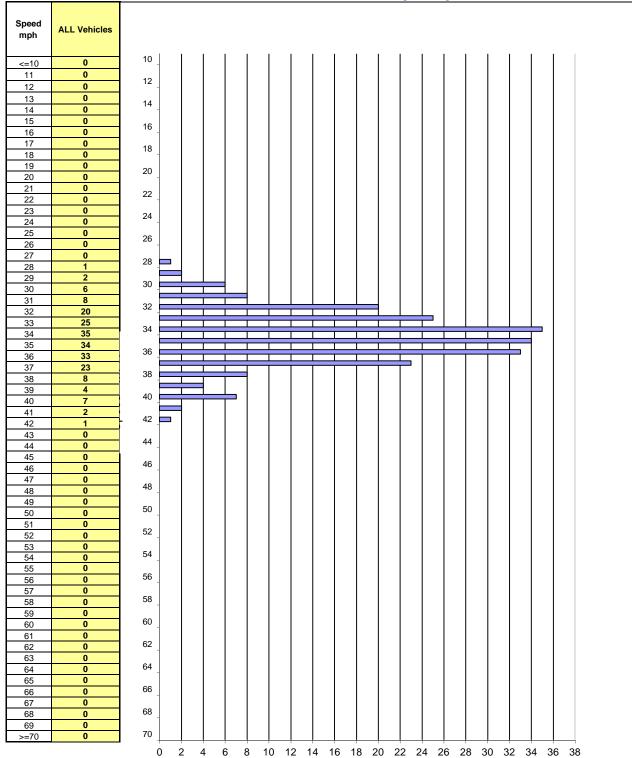
City of Antioch

Survey Time: 0900-0940 Street Width: 58 Ft

DATE: 11/25/2014 Location: 1865 Auto Center Drive

DAY: Tuesday Posted Speed: 35 MPH Project #: 14-7726-006

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	209	28-42	35 mph	37 mph	31 - 40	197	94%	4% / 9	2% / 3				

Segment #7: Buchanan Rd. between City Limits and Somersville Rd.

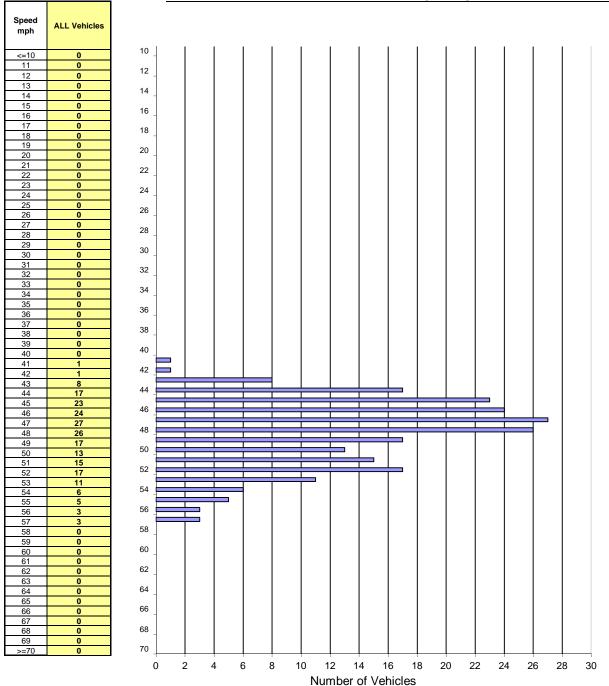
City of Antioch

Survey Time: 2:30-3:30 1100-1140 Street Width: 28 Ft

DATE: 11/17/2014 Location: 1784 Buchancn Road

DAY: Monday Posted Speed: 45 MPH Project #: 14-7726-007

Eastbound & Westbound Spot Speeds



SPEED PARAMETERS Average 85th 10 MPH Percent in Class Count Speed Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace 52 mph

Segment #8: Buchanan Rd. between Somersville Rd. and Gentrytown Dr.

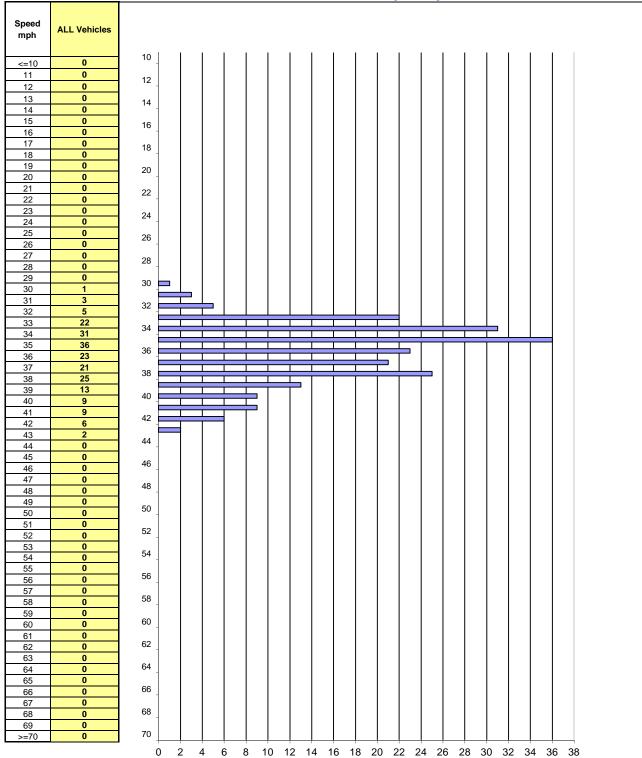
City of Antioch

Survey Time: 1000-1030 Street Width: 53 Ft

DATE: 11/17/2014 Location: 2388 Buchanan Road

DAY: Monday Posted Speed: 35 MPH Project #: 14-7726-008

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS										
	50th 85th 10 MPH Percent in										
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace		
ALL	206	30-43	36 mph	39 mph	33 - 42	195	95%	4% / 9	1% / 2		

Segment #9: Buchanan Rd. between Gentrytown Dr. to Contra Loma Blvd.

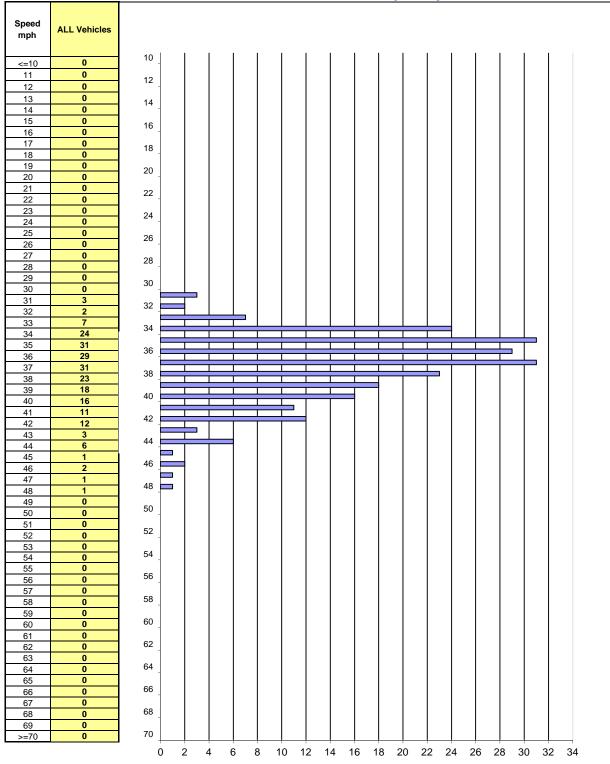
City of Antioch

Survey Time: 1200-1240 Street Width: 68 Ft

DATE: 11/7/2014 Location: 1304 Buchanan Road

DAY: Friday Posted Speed: 35 MPH Project #: 14-7726-009

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS										
	50th 85th 10 MPH Percent in										
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace		
ALL	221	31-48	37 mph	41 mph	33 - 42	202	91%	2% / 5	7% / 14		

Segment #10: Cavallo Rd. betwen E. Tregallas Rd. and 18th St.

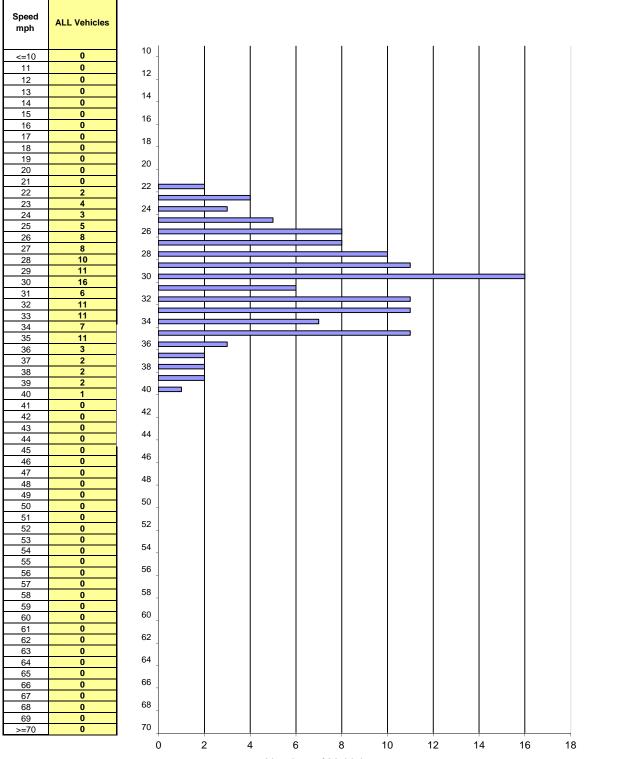
City of Antioch

Survey Time: 0900-1010 Street Width: 36 Ft

DATE: 11/10/2014 Location: 1930 Cavallo Road

DAY: Monday Posted Speed: 25 MPH Project #: 14-7726-010

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	123	22-40	30 mph	35 mph	26 - 35	99	80%	11% / 14	9% / 10			

Segment #11: Cavallo Rd. between 18th St. and Wilbur Ave.

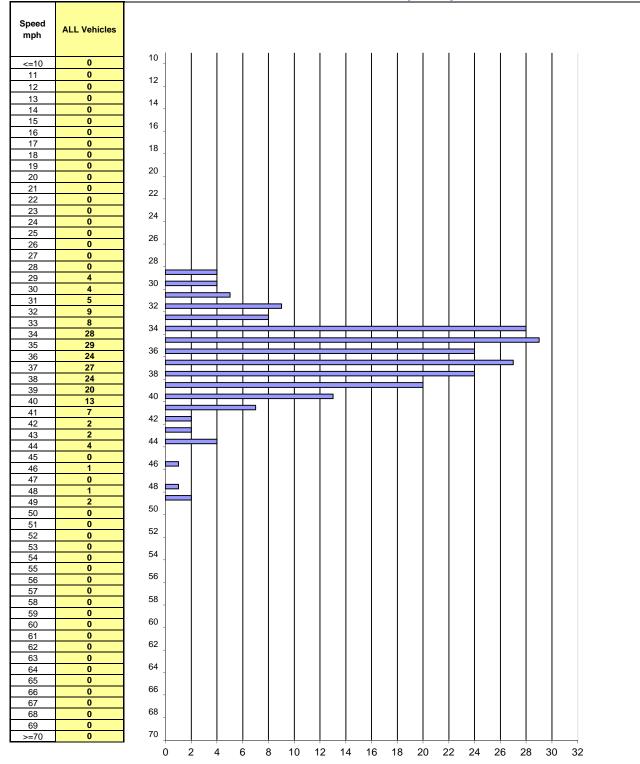
City of Antioch

Survey Time: 1020-1110 Street Width: 55 Ft

DATE: 11/10/2014 Location: 1625 Cavallo Road

DAY: Monday Posted Speed: 35 MPH Project #: 14-7726-011

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS										
	50th 85th 10 MPH Percent in										
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace		
ALL	214	29-49	36 mph	39 mph	32 - 41	189	88%	6% / 13	6% / 12		

Segment #12: Contra Loma Blvd. between SR-4 and Longview Dr.

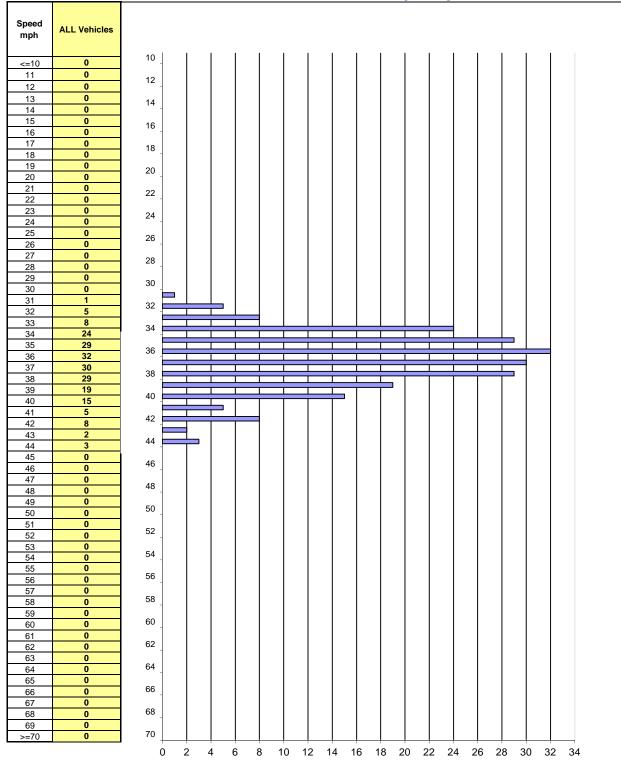
City of Antioch

Survey Time: 1015-1045 Street Width: 64 Ft

DATE: 11/14/2014 Location: 3019 Contra Loma Boulevard

DAY: Friday Posted Speed: 35 MPH Project #: 14-7726-012

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS										
	50th 85th 10 MPH Percent in										
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace		
ALL	210	31-44	37 mph	40 mph	33 - 42	199	95%	2% / 6	3% / 5		

Segment #13: Contra Loma Blvd. between from Longview Dr. and James Donlon Blvd.

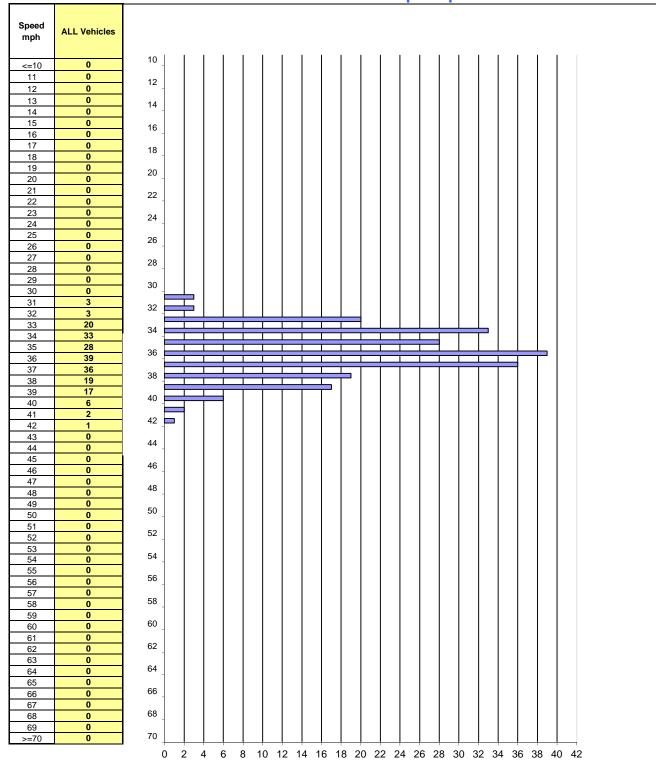
City of Antioch

Survey Time: 1310-1410 Street Width: 64 Ft

DATE: 11/12/2014 Location: 3354 Contra Loma Boulevard

DAY: Wednesday Posted Speed: 35 MPH Project #: 14-7726-013

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	207	31-42	36 mph	38 mph	31 - 40	204	99%	0% / 0	2% / 3			

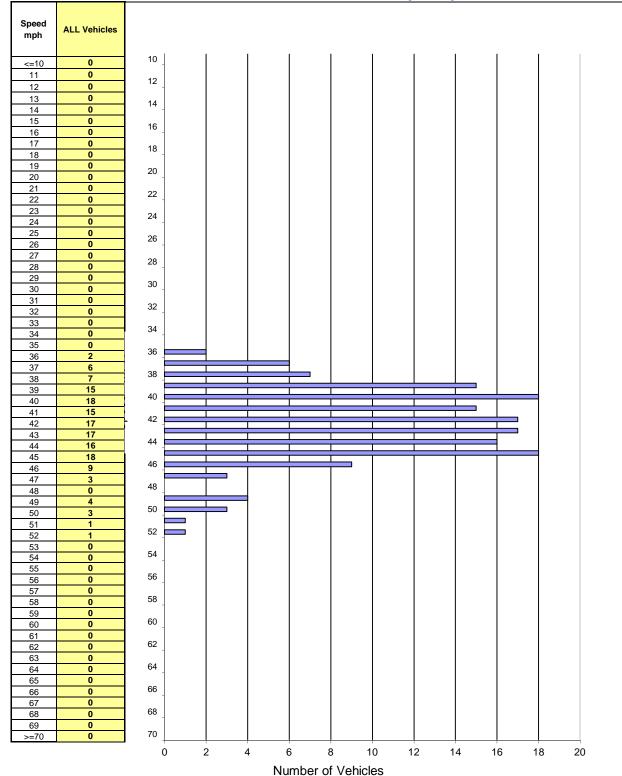
Segment #14: Dallas Ranch Rd. between Lone Tree Wy. and Mokelomne Dr.

City of Antioch

Survey Time: 1245-1345 Street Width: 62 Ft

DATE: 11/12/2014 Location: Dallas Ranch Road 350 feet north of Stonecrest Drive
DAY: Monday Posted Speed: 45 MPH Project #: 14-7726-014

Northbound & Southbound Spot Speeds



SPEED PARAMETERS 10 MPH 85th 50th Percent in Class Count Range Percentile Percentile Pace Pace % / # Below Pace % / # Above Pace ALL 152 36-52 42 mph 45 mph 37 - 46 138 91%

Segment #15: Davison Dr. between Lone Tree Wy. and Hillcrest Ave.

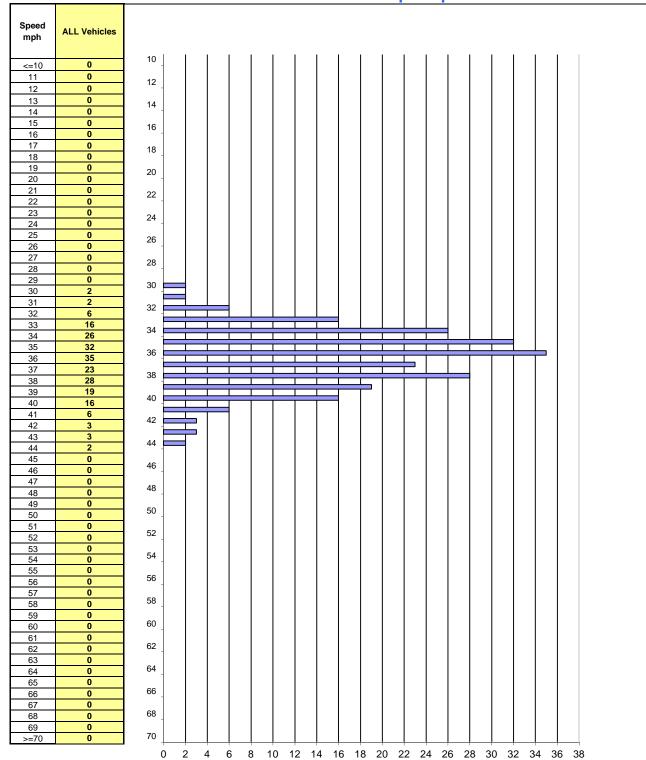
City of Antioch

Survey Time: 1350-1440 Street Width: 55 Ft

DATE: 11/20/2014 Location: 505 Burwood Way

DAY: Thursday Posted Speed: 35 MPH Project #: 14-7726-015

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS										
	50th 85th 10 MPH Percent in										
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace		
ALL	219	30-44	36 mph	39 mph	32 - 41	207	95%	1% / 4	4% / 8		

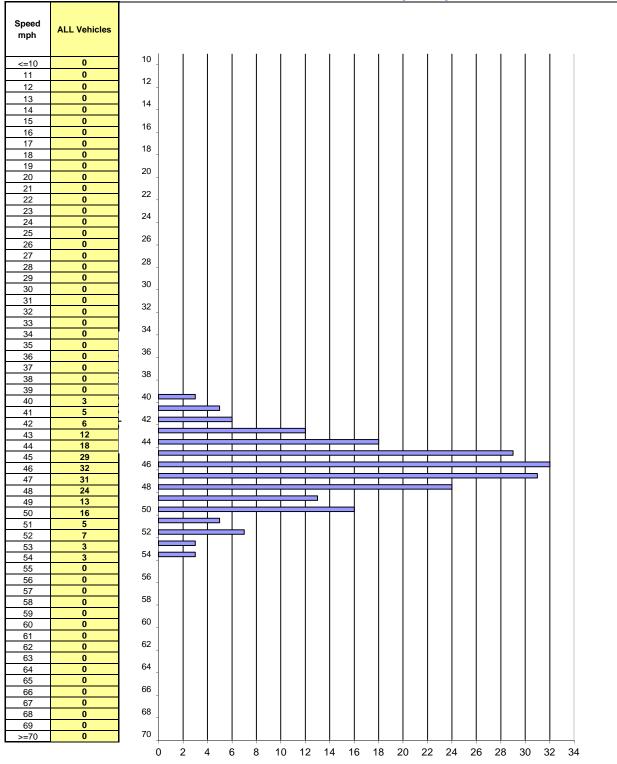
Segment #16: Deer Valley Rd. between Hillcrest Ave. and Lone Tree Way.

City of Antioch

Survey Time: 1000-1030 Street Width: 67 Ft

DATE: 11/25/2014 Location: Deer Valley Road 900 feet south of Rocky Point Drive
DAY: Tuesday Posted Speed: 45 MPH Project #: 14-7726-016

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
Class	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	207	40-54	46 mph	50 mph	43 - 52	187	90%	6% / 14	3% / 6			

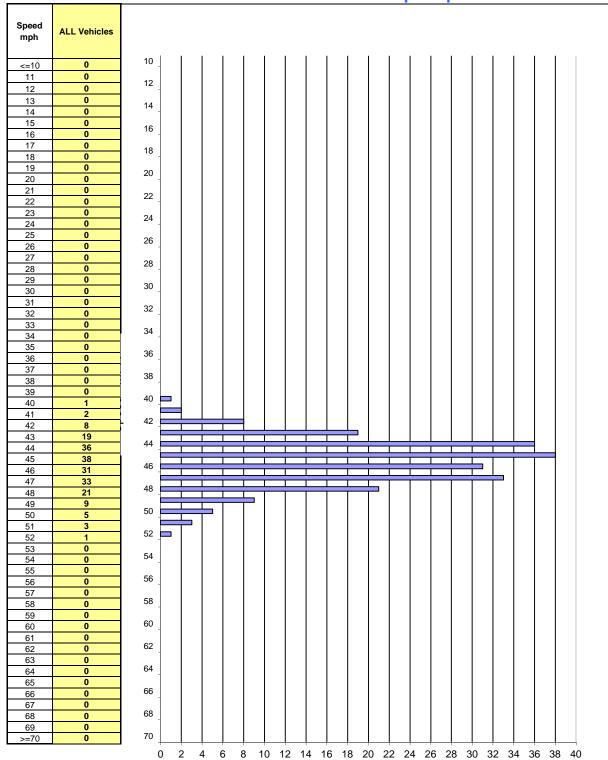
Segment #17: Deer Valley Rd. bwtween Lone Tree Wy. and Mammoth Dr.

City of Antioch

Survey Time: 1045-1125 Street Width: 68 Ft

DATE: 11/25/2014 Location: Deer Valley Road 800 feet north of Prewitt Ranch Drive
DAY: Thursday Posted Speed: 45 MPH Project #: 14-7726-017

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	207	40-52	45 mph	48 mph	42 - 51	203	98%	1% / 3	1% / 1			

Segment #18: Deer Valley Rd. between Mammoth Dr. and City Limits

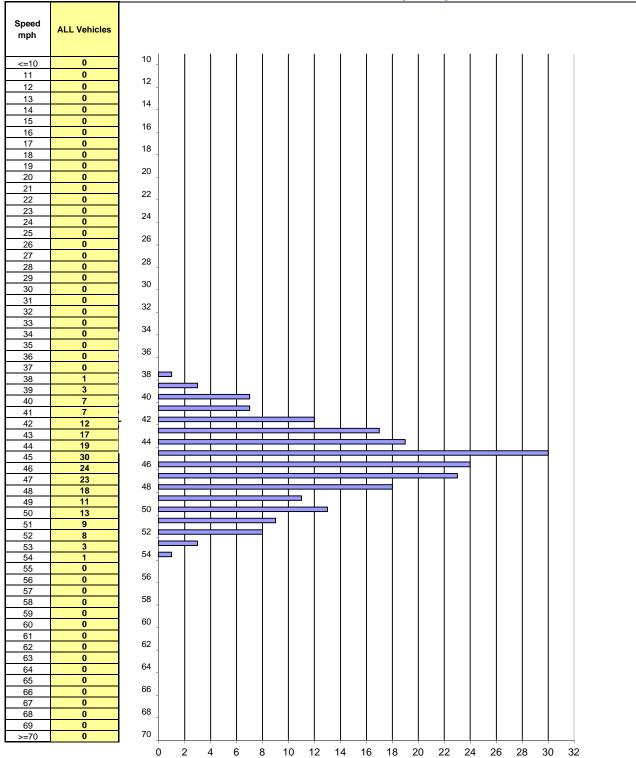
City of Antioch

Survey Time: 1400-1450 Street Width: 19 Ft

DATE: 11/17/2014 Location: 6801 Deer Valley Road

DAY: Monday Posted Speed: 45 MPH Project #: 14-7726-018

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	_	_	50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	206	38-54	46 mph	50 mph	42 - 51	176	85%	8% / 18	6% / 12			

Segment #19: Delta Fair Blvd. between City Limits and Belle Dr.

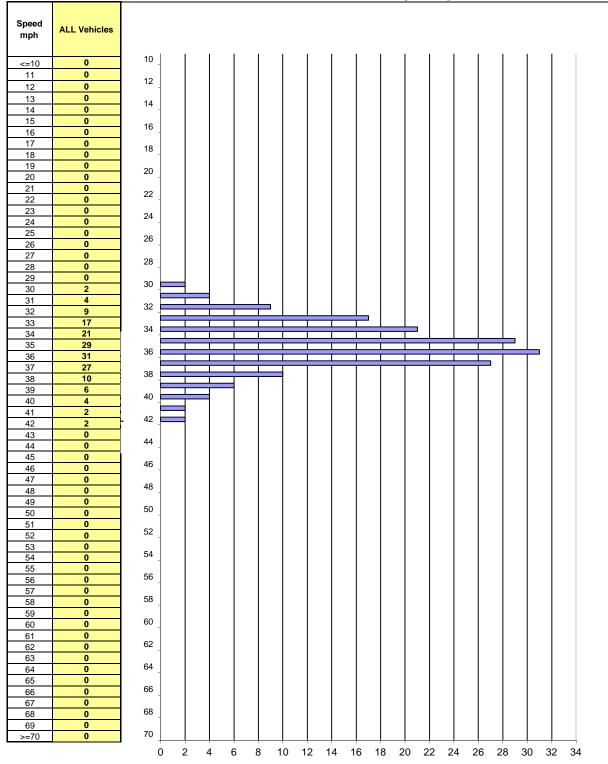
City of Antioch

Survey Time: 0900-9040 Street Width: 56 Ft

DATE: 11/21/2014 Location: 4545 Delta Fair Boulevard

DAY: Friday Posted Speed: 35 MPH Project #: 14-7726-019

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
			50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	164	30-44	35 mph	37 mph	31 - 40	158	96%	1% / 2	3% / 4			

Segment #20: Delta Fair Blvd. between Belle Dr. to Kendree St.

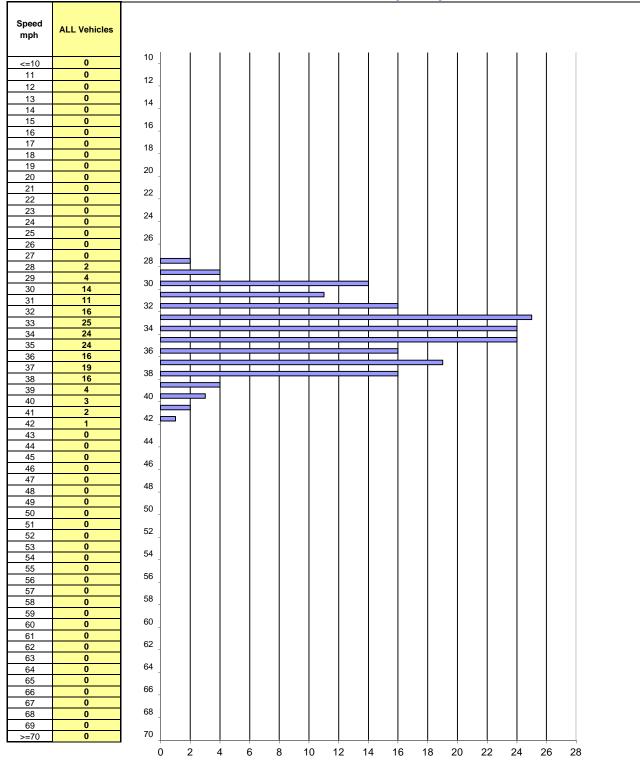
City of Antioch

Survey Time: 0950-1020 Street Width: 52 Ft

DATE: 11/21/2014 Location: 4325 Delta Fiar Boulevard

DAY: Friday Posted Speed: 30 MPH Project #: 14-7726-020

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	181	28-44	34 mph	37 mph	29 - 38	169	93%	1% / 2	6% / 10			

Segment #21: Delta Fair Blvd. between Kendree St. to Somersville Rd.

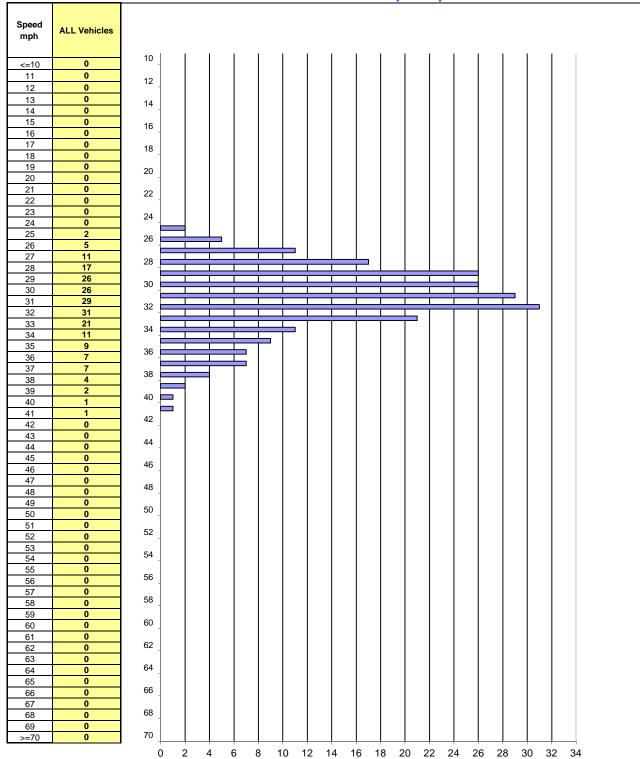
City of Antioch

Survey Time: 1035-1100 Street Width: 56 Ft

DATE: 11/21/2014 Location: 3486 Delta Fiar Boulevard

DAY: Friday Posted Speed: 30 MPH Project #: 14-7726-021

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	210	25-41	31 mph	34 mph	27 - 36	188	90%	3% / 7	8% / 15			

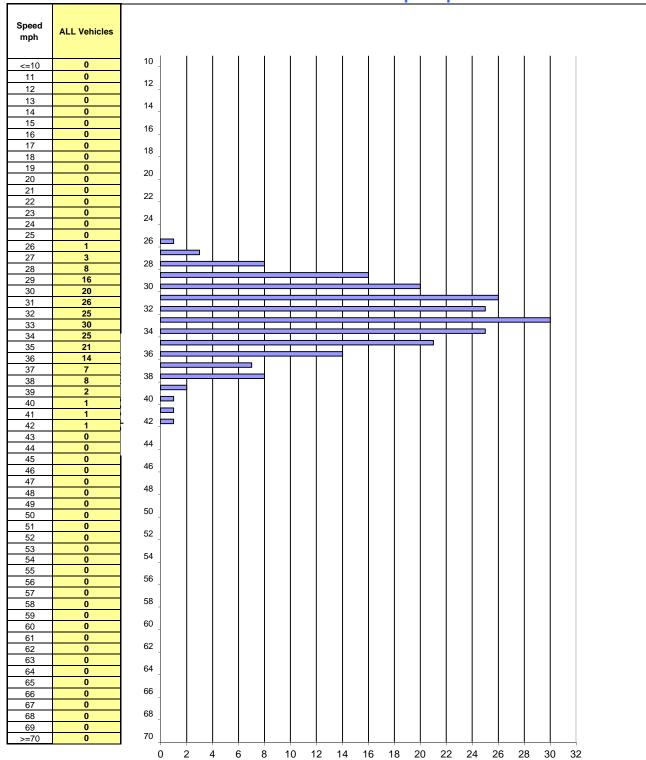
Segment #22: Delta Fair Blvd. between Somersville Rd. to Buchanan Rd.

City of Antioch

Survey Time: 1055-1135 Street Width: 60 Ft

DATE: 11/21/2014 Location: Delta Fair Boulevard 400 feet south of San Jose Drive
DAY: Friday Posted Speed: 30 MPH Project #: 14-7726-022

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
			50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	209	26-42	33 mph	36 mph	28 - 37	192	92%	1% / 4	7% / 13			

Segment #23: E. 18th St. between A St. and Cavallo Rd.

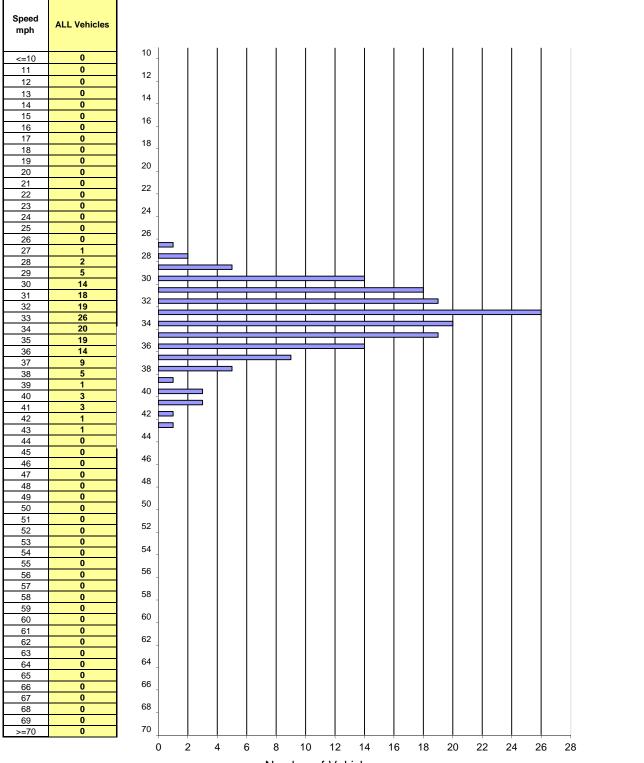
City of Antioch

Survey Time: 1410-1510 Street Width: 60 Ft

DATE: 11/7/2014 Location: 34 East 18th Street

DAY: Friday Posted Speed: 30 MPH Project #: 14-7726-023

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
			50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	161	27-43	33 mph	36 mph	29 - 38	149	93%	1% / 3	6% / 9			

Segment #24: E. 18th St. between Cavallo Rd. to Hillcrest Ave.

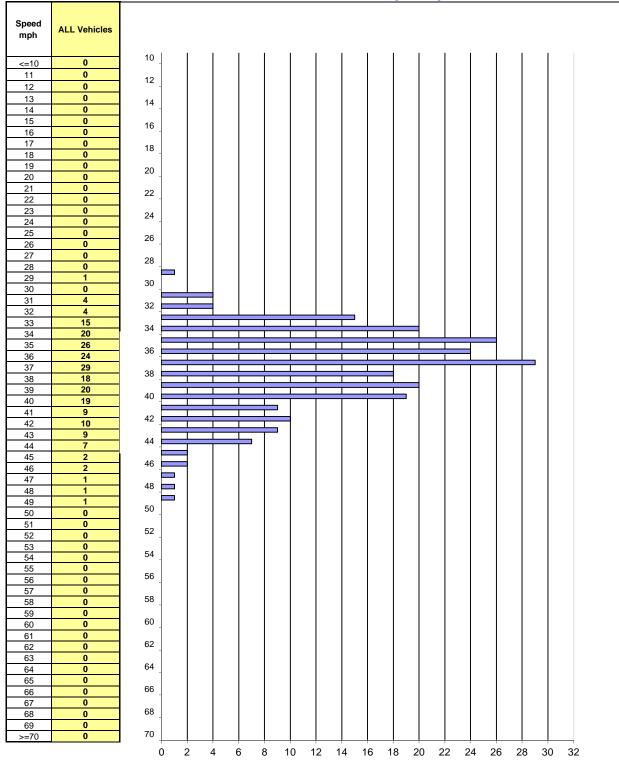
City of Antioch

Survey Time: 1130-1205 Street Width: 61 Ft

DATE: 11/10/2014 Location: 1721 E. 18th Street

DAY: Monday Posted Speed: 35 MPH Project #: 14-7726-024

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
			50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	222	29-49	37 mph	41 mph	33 - 42	190	86%	4% / 9	11% / 23			

Segment #25: E. 18th St. between Hillcrest Ave. and City Limits

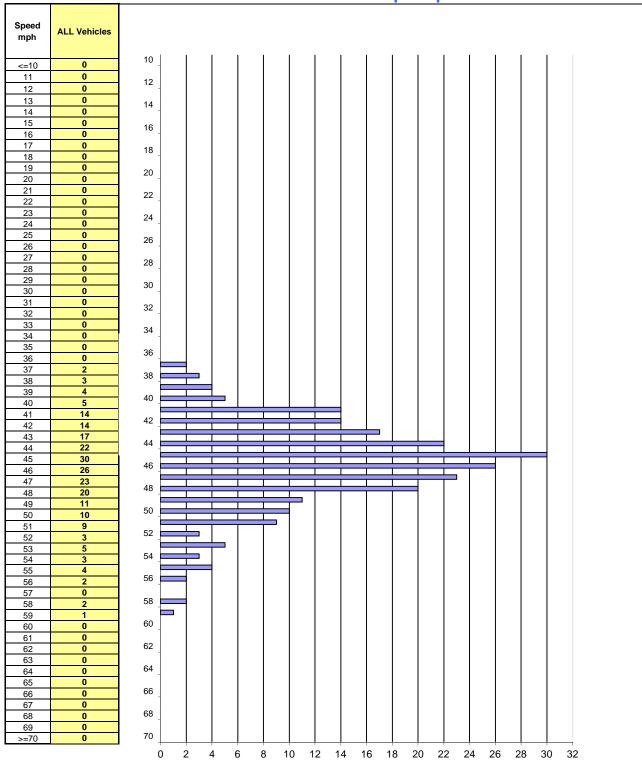
City of Antioch

Survey Time: 0900-0935 Street Width: 58Ft

DATE: 11/4/2014 Location: 3022 E. 18th Street

DAY: Tuesday Posted Speed: 45 MPH Project #: 14-7726-025

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	230	37-59	46 mph	50 mph	41 - 50	187	81%	6% / 14	13% / 29			

Segment #26: Fitzuren Rd. between G St. to Contra Loma Blvd.

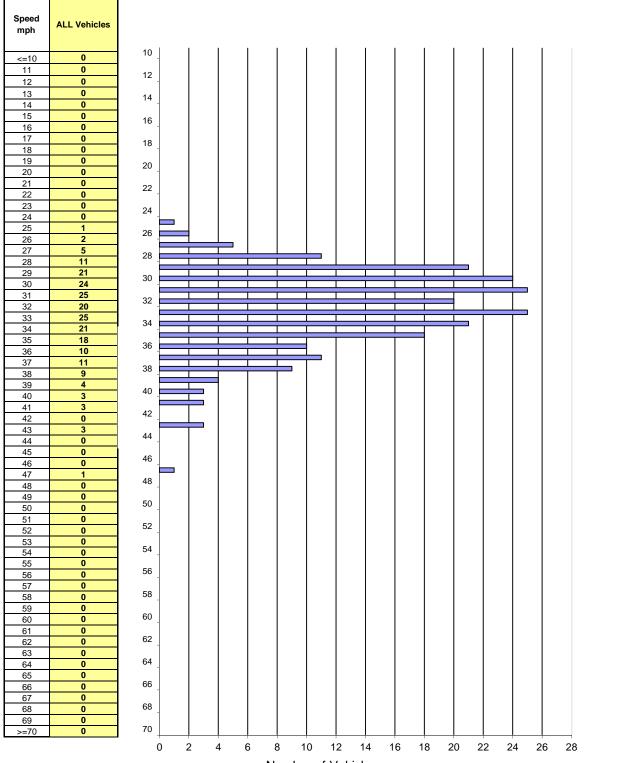
City of Antioch

Survey Time: 1315-1345 Street Width: 28 Ft

DATE: 11/7/2014 Location: 995 Fitzuren Road

DAY: Friday Posted Speed: 30 MPH Project #: 14-7726-026

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	_		50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	217	25-47	32 mph	37 mph	28 - 37	186	86%	3% / 8	11% / 23			

Segment #27: W. 4th St. between Somersville Rd. to L St.

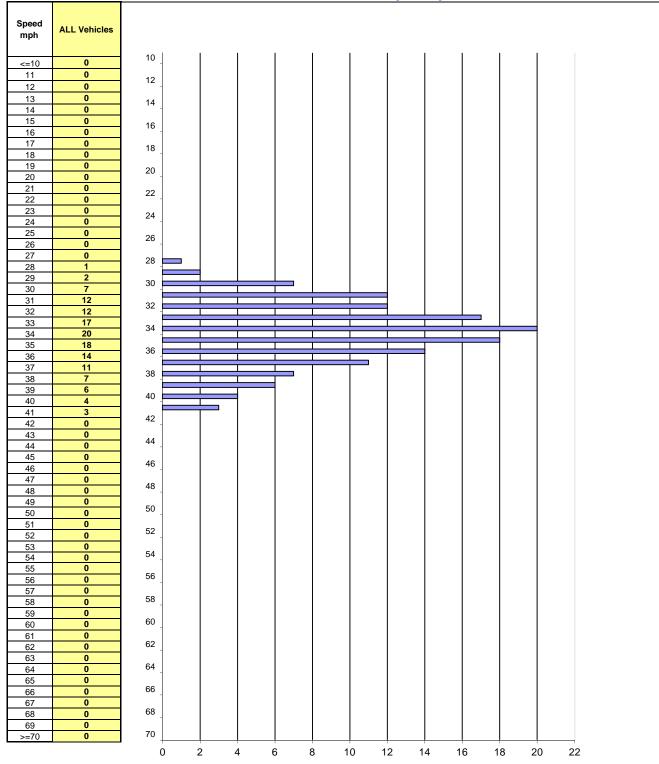
City of Antioch

Survey Time: 1115-1215 Street Width: 65 Ft

DATE: 11/5/2014 Location: 1300 W. 4th Street

DAY: Wednesday Posted Speed: 35 MPH Project #: 14-7726-027

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS												
			50th	85th	10 MPH		Percent in						
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	134	28-48	34 mph	37 mph	30 - 39	124	93%	2% / 3	6% / 7				

Segment #28: W. 4th St. between L St. to C St.

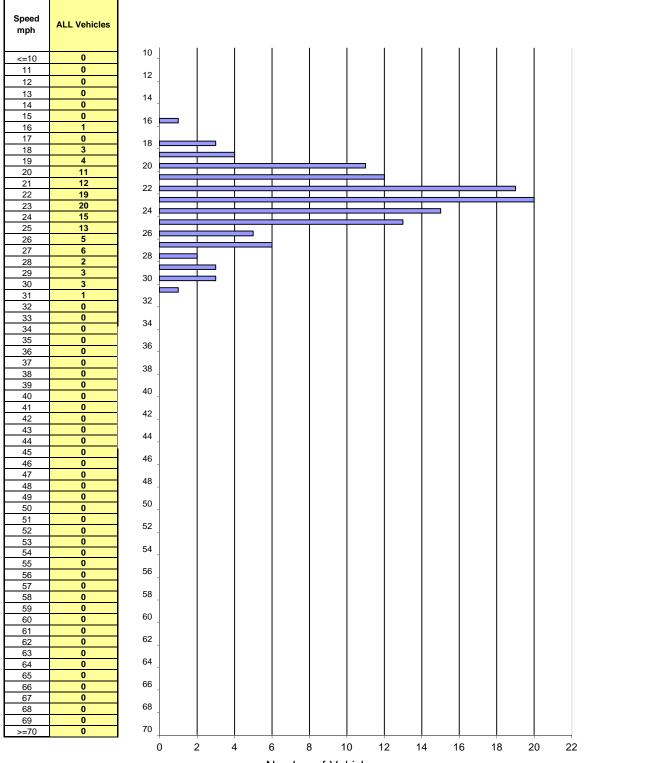
City of Antioch

Survey Time: 1225-1350 Street Width: 35 Ft

DATE: 11/5/2014 Location: 608 W. 4th Street

DAY: Wednesday Posted Speed: 25 MPH Project #: 14-7726-028

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	118	16-31	23 mph	26 mph	18 - 27	108	92%	0% / 1	8% / 9			

Segment #29: G St. from 2nd St. to W. Tregallas Rd.

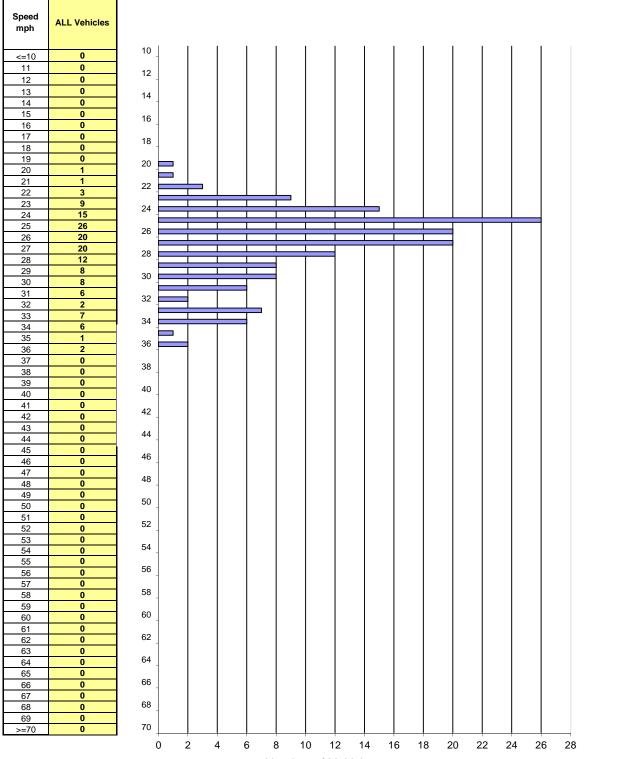
City of Antioch

Survey Time: 1435-1535 Street Width: 35 Ft

DATE: 11/10/2014 Location: 2317 G Street

DAY: Monday Posted Speed: 25 MPH Project #: 14-7726-029

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
01	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	147	20-36	26 mph	31 mph	22 - 31	127	86%	1% / 2	13% / 18			

Segment #30: G St. between Putnam St. and James Donlon Blvd.

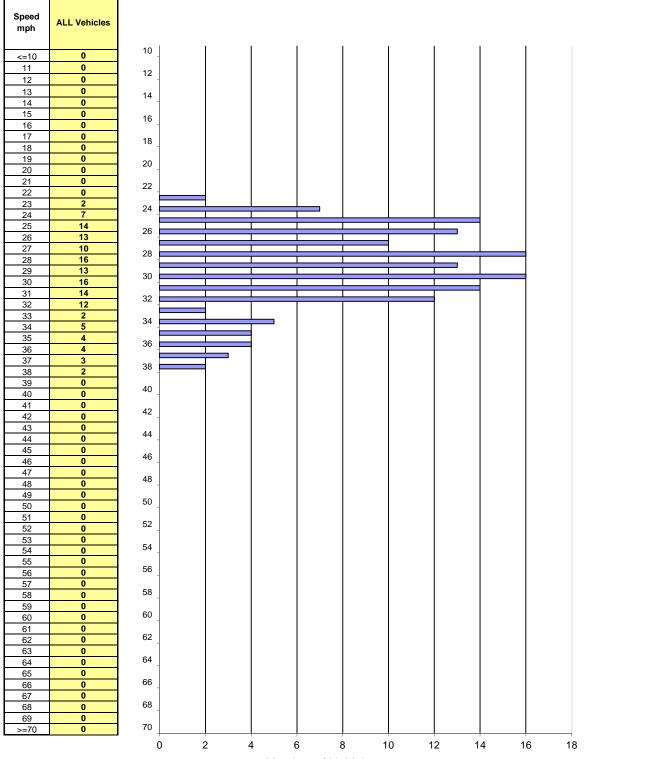
City of Antioch

Survey Time: 1335-1415 Street Width: 36 Ft

DATE: 11/14/2014 Location: 3240 G Street

DAY: Friday Posted Speed: 25 MPH Project #: 14-7726-030

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
			50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	137	23-38	29 mph	32 mph	23 - 32	117	85%	0% / 0	15% / 20			

Segment #31: Garrow Dr. between E. Tregallas Rd. and Davison Dr.

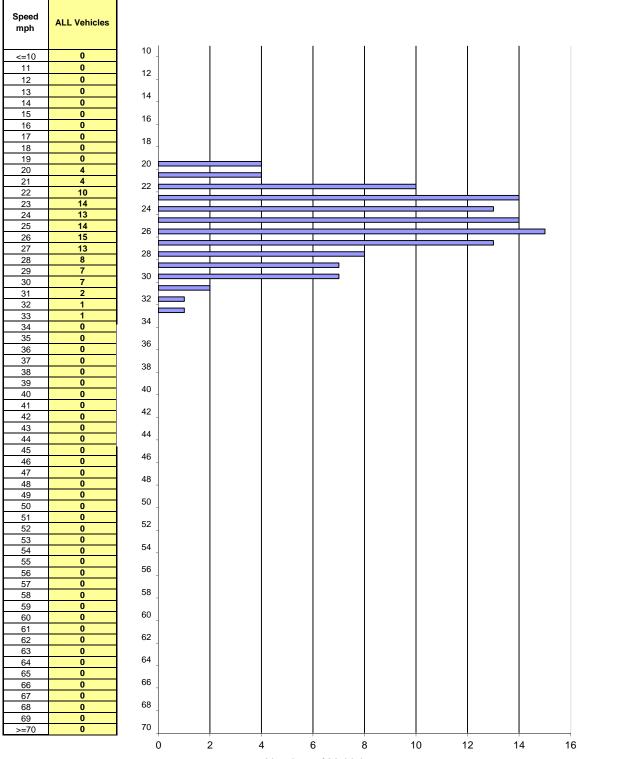
City of Antioch

Survey Time: 0930-1130 Street Width: 31 Ft

DATE: 11/13/2014 Location: 3316 Garrow Drive

DAY: Thursday Posted Speed: 25 MPH Project #: 14-7726-031

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
			50th	85th	10 MPH		Percent in						
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	113	20-33	25 mph	29 mph	21 - 30	105	93%	3% / 4	4% / 4				

Segment #32: Gentrytown Dr. between Buchanan Rd. and Putnam St.

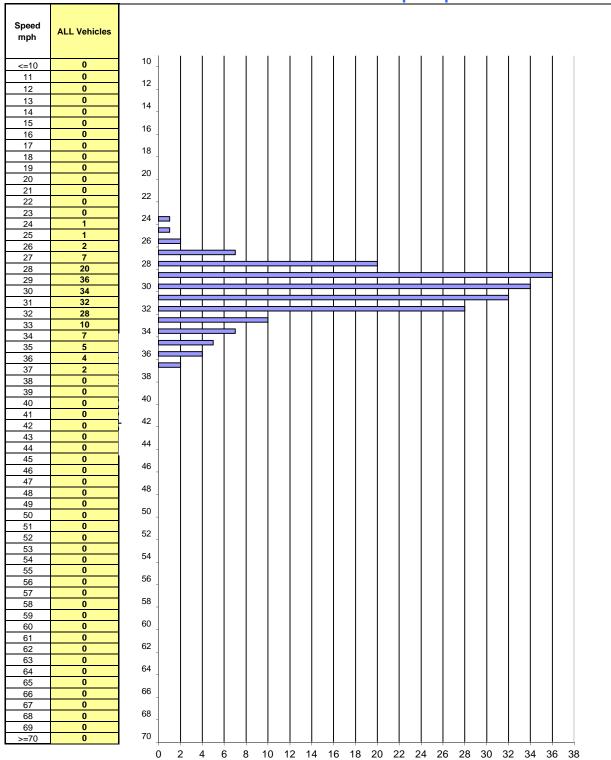
City of Antioch

Survey Time: 1155-1245 Street Width: 36 Ft

DATE: 11/21/2014 Location: 2823 Gentrytown Drive

DAY: Friday Posted Speed: 25 MPH Project #: 14-7726-032

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	189	24-44	30 mph	32 mph	27 - 36	183	97%	2% / 4	2% / 2			

Segment #33: Gentrytown Dr. between Putnam St. and James Donlon Blvd.

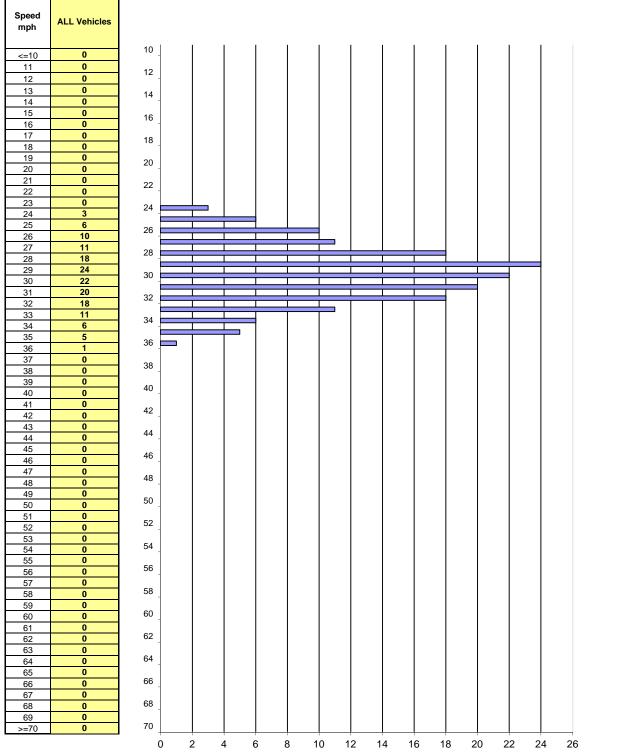
City of Antioch

Survey Time: 1045-1145 Street Width: 36 Ft

DATE: 11/12/2014 Location: 3315 Gentrytown Drive

DAY: Wednesday Posted Speed: 25 MPH Project #: 14-7726-033

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
			50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	155	24-40	30 mph	32 mph	25 - 34	146	94%	1% / 3	4% / 6			

Segment #34: Hillcrest Ave. between 18th St. and Sunset Dr.

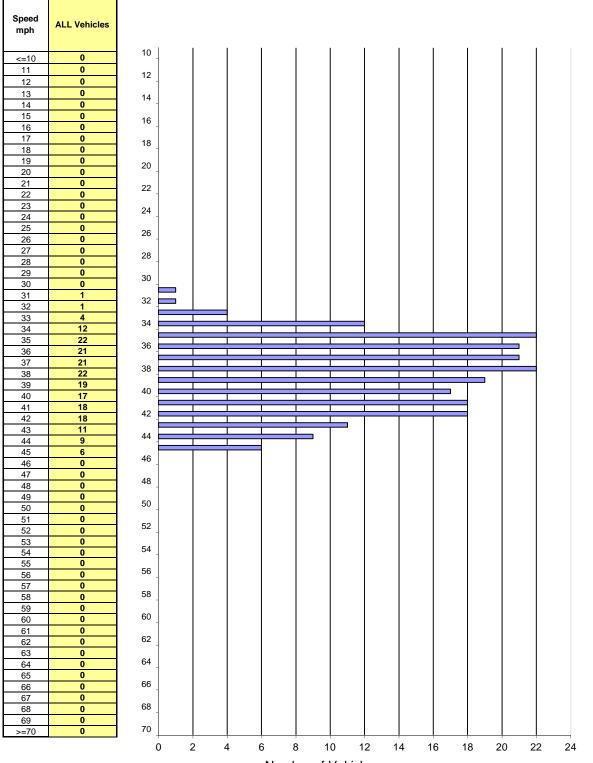
City of Antioch

Survey Time: 1215-1250 Street Width: 72 Ft

DATE: 11/10/2014 Location: 2024 Hillcrest Avenue

DAY: Monday Posted Speed: 35 MPH Project #: 14-7726-034

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	202	31-51	38 mph	42 mph	34 - 43	181	90%	2% / 6	8% / 15			

Segment #35: Hillcrest Ave. between Sunset Dr. and Davison Dr.

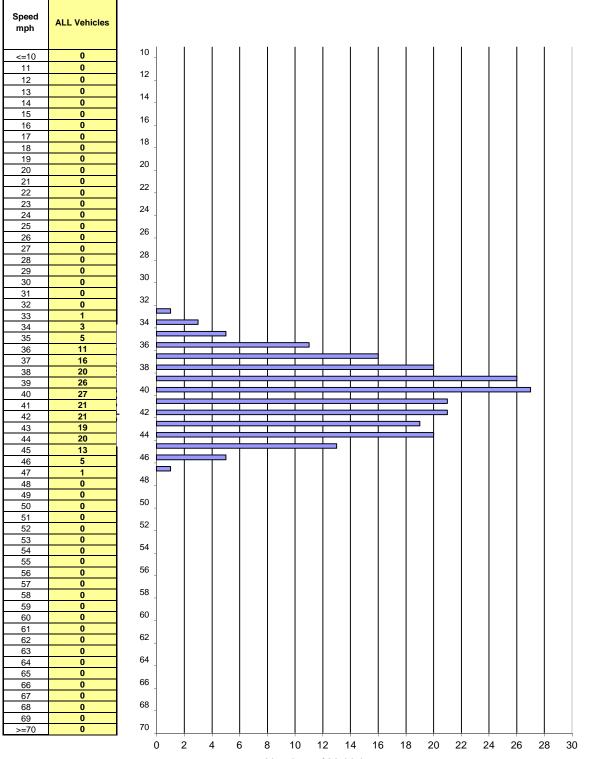
City of Antioch

Survey Time: 1415-1515 Street Width: 82 Ft

DATE: 11/19/2014 Location: 2751 Hillcrest Avenue

DAY: Wednesday Posted Speed: 45 MPH Project #: 14-7726-035

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	209	33-47	40 mph	44 mph	36 - 45	194	93%	4% / 9	3% / 6			

Segment #36: Hillcrest Ave. between Davison Dr. and Lone Tree Wy.

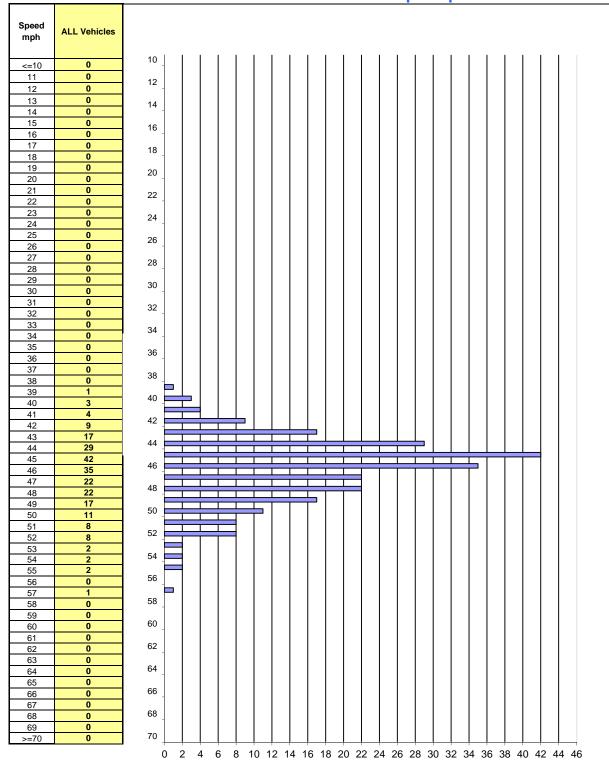
City of Antioch

Survey Time: 0900-0940 Street Width: 62 Ft

DATE: 11/12/2014 Location: 3527 Hillcrest Avenue

DAY: Wednesday Posted Speed: 45 MPH Project #: 14-7726-036

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	235	39-57	46 mph	49 mph	42 - 51	212	90%	3% / 8	7% / 15			

Segment #37: James Donlon Blvd. between Somersville Rd. and Contra Loma Blvd.

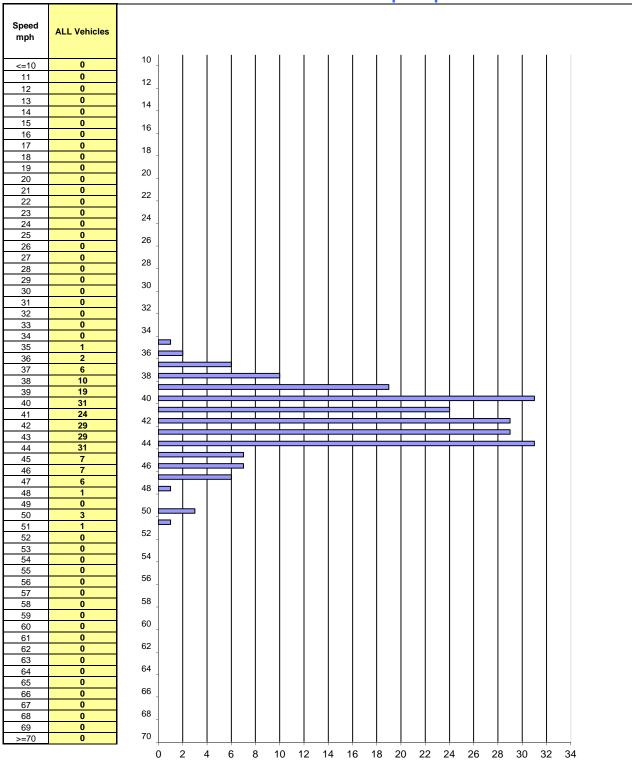
City of Antioch

Survey Time: 1210-1240 Street Width: 71 Ft

DATE: 11/12/2014 Location: James Donlon Boulevard mid block between Silverado Drive and Gentrytown Drive

DAY: Wednesday Posted Speed: 40 MPH Project #: 14-7726-037

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	207	35-51	42 mph	44 mph	37 - 46	193	93%	1% / 3	6% / 11			

Segment #38: James Donlon Blvd. between Contra Loma Blvd. and Lone Tree Wy.

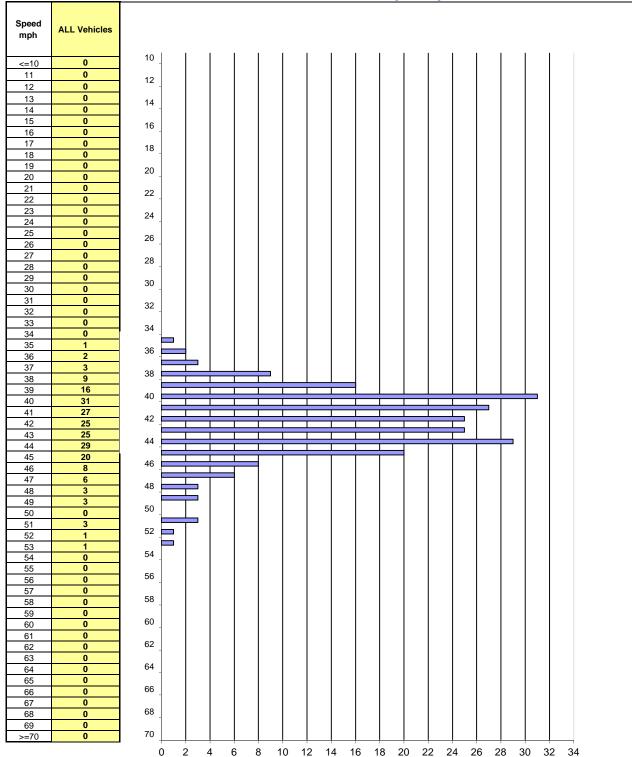
City of Antioch

Survey Time: 1000-1030 Street Width: 71 Ft

DATE: 11/12/2014 Location: James Donlon Boulevard mid block between G Street and S. Royal Links Circle

DAY: Wednesday Posted Speed: 40 MPH Project #: 14-7726-038

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
			50th	85th	10 MPH		Percent in					
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	213	35-53	42 mph	45 mph	38 - 47	196	92%	2% / 6	6% / 11			

Segment #39: L St. between 2nd St. and 10th St.

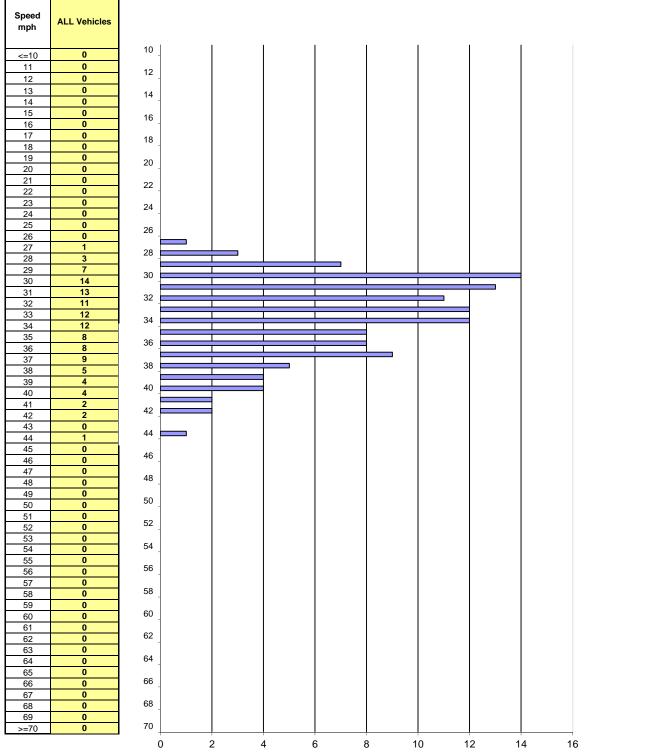
City of Antioch

Survey Time: 0900-1015 Street Width: 62 Ft

DATE: 11/6/2014 Location: 755 L Street

DAY: Thursday Posted Speed: 25 MPH Project #: 14-7726-039

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
Class	50th 85th 10 MPH Percent in Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace												
ALL	116	27-44	33 mph	38 mph	29 - 38	99	85%	3% / 4	12% / 13				

Segment #40: L St. between 10th St. and 18th St.

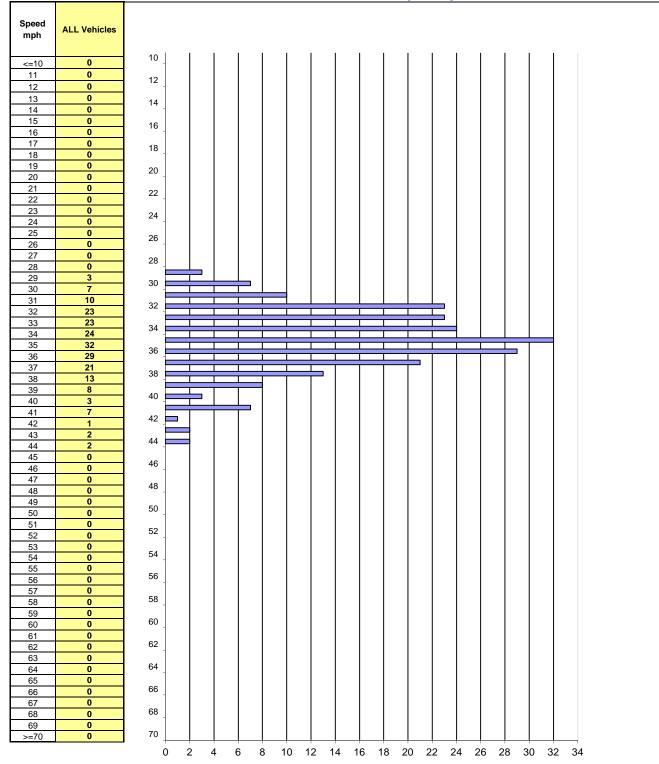
City of Antioch

Survey Time: 0950-1030 Street Width: 39 Ft

DATE: 11/7/2014 Location: 1121 L Street

DAY: Friday Posted Speed: 35 MPH Project #: 14-7726-040

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	208	29-44	35 mph	38 mph	30 - 39	190	91%	1% / 3	8% / 15			

Segment #41: L St. between 18th St. and SR-4

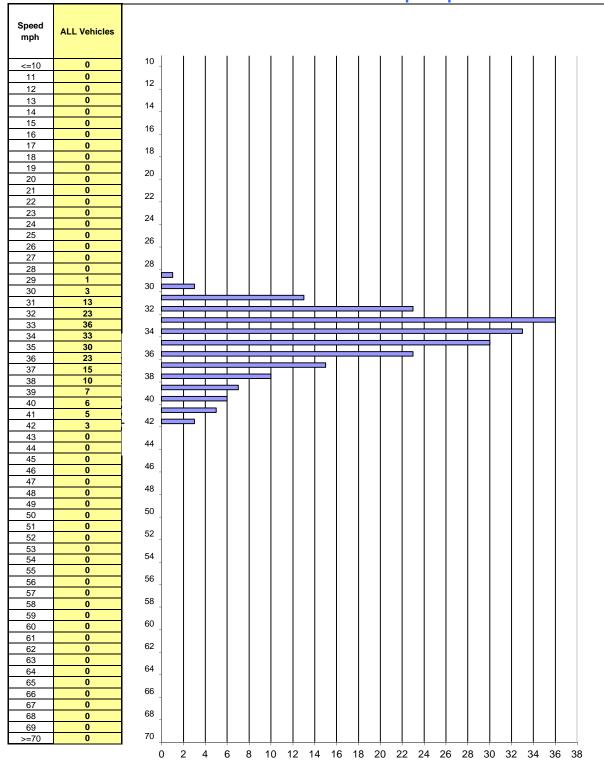
City of Antioch

Survey Time: 1030-1120 Street Width: 54 Ft

DATE: 11/20/2014 Location: 2212 L Street

DAY: Thursday Posted Speed: 35 MPH Project #: 14-7726-041

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
Class	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	208	29-42	34 mph	37 mph	31 - 40	196	94%	1% / 4	4% / 8			

Segment #42: Laurel Rd. between Hillcrest Ave. and End

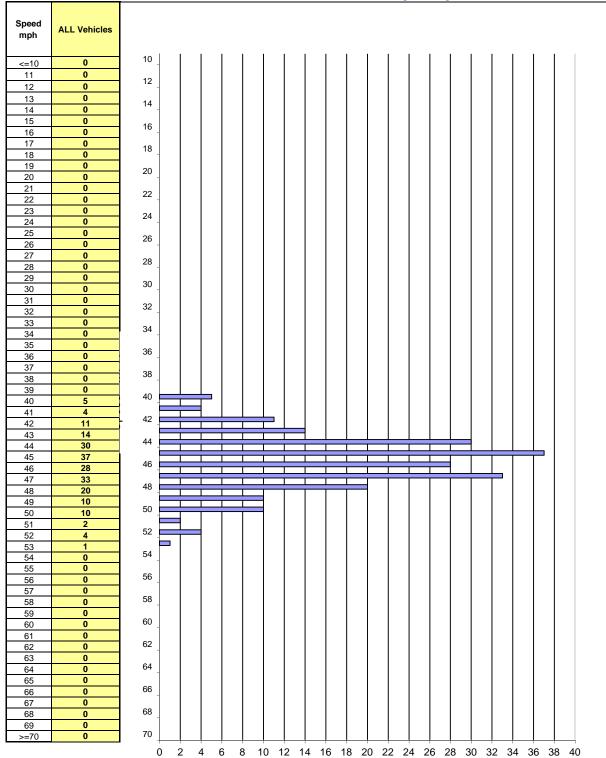
City of Antioch

Survey Time: 1150-1235 Street Width: 66 Ft

DATE: 11/20/2014 Location: Laurel Road 500 feet south of Kushner Way

DAY: Thursday Posted Speed: 45 MPH Project #: 14-7726-042

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	209	40-53	46 mph	48 mph	41 - 50	197	94%	2% / 5	4% / 7			

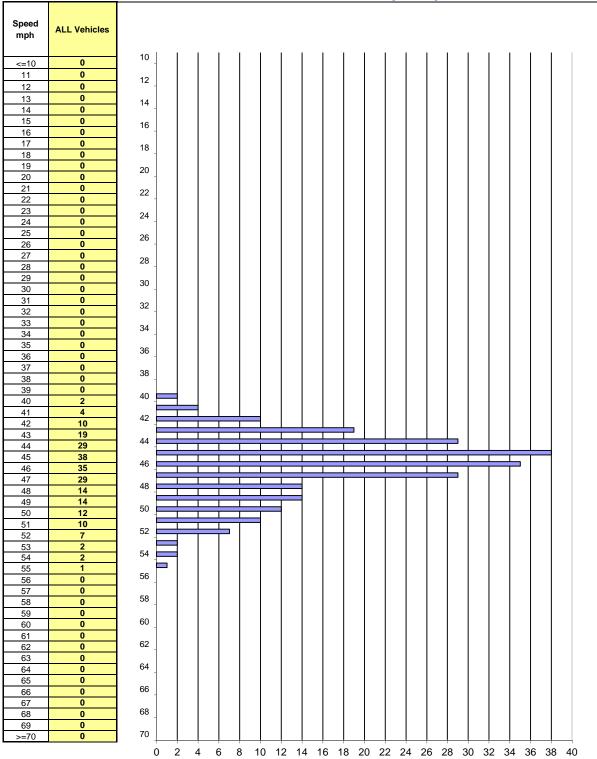
Segment #43: Laurel Rd. between SR-4 and City Limits

City of Antioch

Survey Time: 1300-1330 Street Width: 65 Ft

DATE: 11/20/2014 Location: Laurel Road 600 feet west of Oak Avenue
DAY: Thursday Posted Speed: 45 MPH Project #: 14-7726-043

Eastbound & Westbound Spot Speeds



SPEED PARAMETERS											
	50th 85th 10 MPH Percent in										
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace		
ALL	228	40-55	46 mph	49 mph	42 - 51	210	92%	2% / 6	6% / 12		

Segment #44: Lone Tree Wy. between SR-4 and Putnam St.

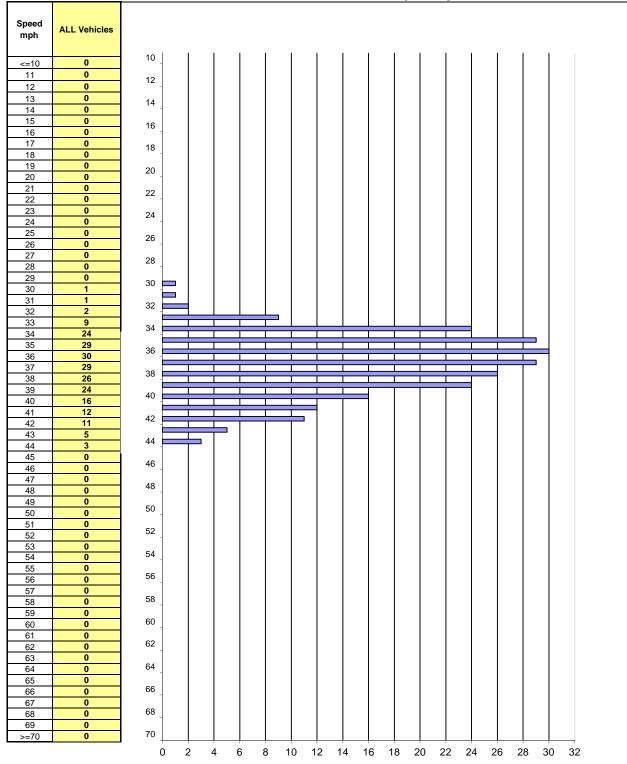
City of Antioch

Survey Time: 1145-1210 Street Width: 62 Ft

DATE: 11/13/2014 Location: 2866 Lone Tree Way

DAY: Thursday Posted Speed: 30 MPH Project #: 14-7726-044

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
Class	50th 85th 10 MPH Percent in Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	222	30-44	37 mph	40 mph	33 - 42	210	95%	1% / 4	4% / 8			

Segment #45: Lone Tree Wy. between Putnam St. and James Donlon Blvd.

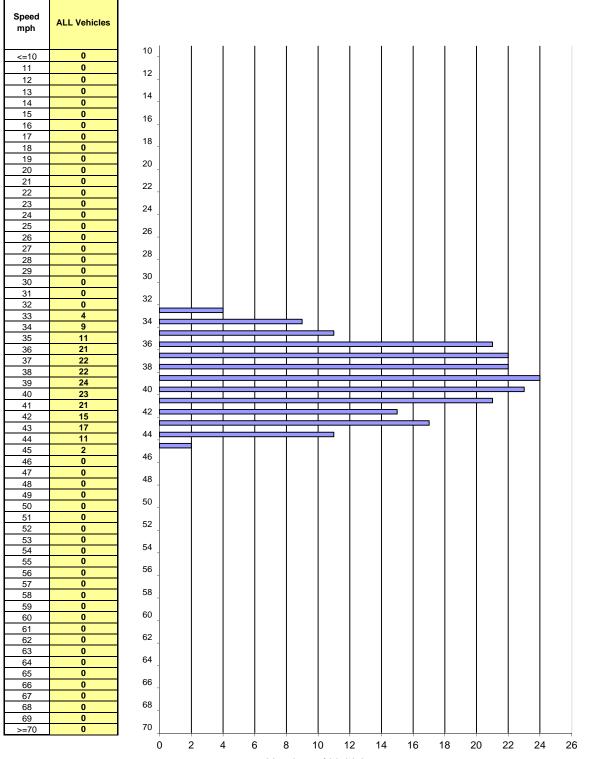
City of Antioch

Survey Time: 1220-1245 Street Width: 72 Ft

DATE: 11/13/2014 Location: 3120 Lone Tree Way

DAY: Thursday Posted Speed: 35 MPH Project #: 14-7726-045

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
01	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	202	33-51	39 mph	42 mph	35 - 44	187	93%	6% / 13	1% / 2			

Segment #46: Lone Tree Wy. between James Donlon Blvd. and Deer Valley Rd.

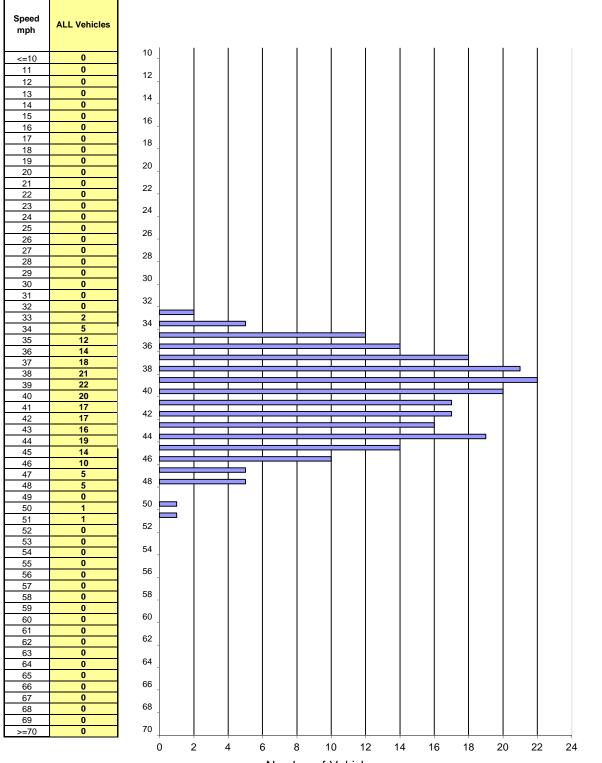
City of Antioch

Survey Time: 1310-1340 Street Width: 71 Ft

DATE: 11/13/2014 Location: 4055 Lone Tree Way

DAY: Thursday Posted Speed: 45 MPH Project #: 14-7726-046

Northbound & Southbound Spot Speeds



SPEED PARAMETERS											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace										
ALL	219	33-51	40 mph	45 mph	36 - 45	178	81%	8% / 19	11% / 22		

Segment #47: Lone Tree Wy. between Deer Valley Rd. and City Limits

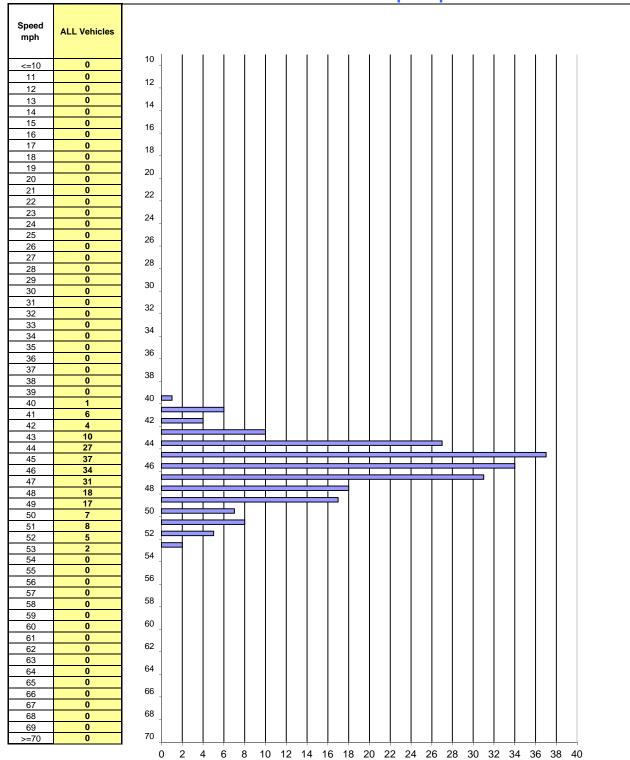
City of Antioch

Survey Time: 1140-1220 Street Width: 70 Ft

DATE: 11/25/2014 Location: 4672 Lone Tree Way

DAY: Tuesday Posted Speed: 45 MPH Project #: 14-7726-047

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	207	40-53	46 mph	49 mph	43 - 52	194	94%	5% / 11	1% / 2			

Segment #48: Minaker/13th/Hillcrest between Wilbur Ave. and 18th St.

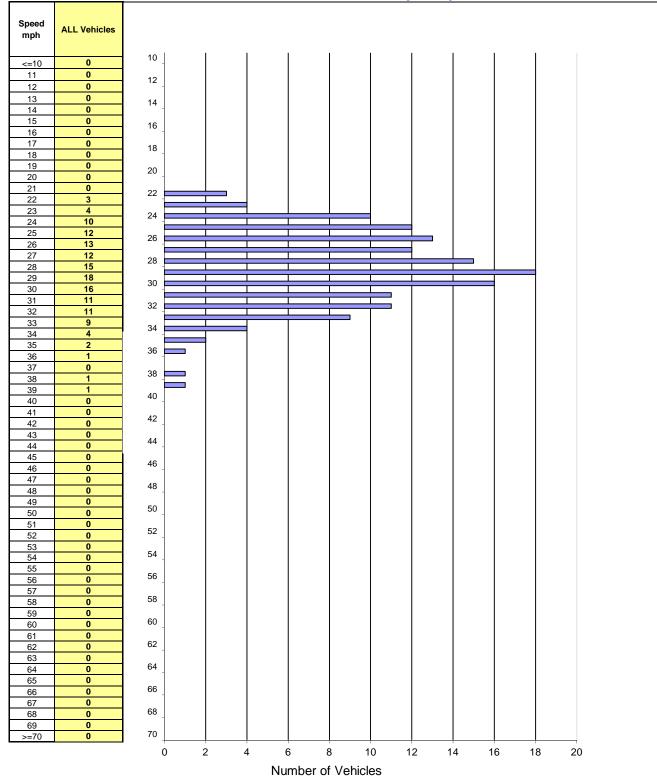
City of Antioch

Survey Time: 1255-1355 Street Width: 60 Ft

DATE: 11/4/2014 Location: 1017 Minaker Drive

DAY: Tuesday Posted Speed: 25 MPH Project #: 14-7726-048

Northbound & Southbound Spot Speeds



SPEED PARAMETERS 10 MPH 85th 50th Percent in Class Count Range Percentile Percentile Pace Pace % / # Below Pace % / # Above Pace ALL 143 29 mph 32 mph 24 - 33 127 89% 4% / 7 7% / 9

Segment #49: W 9th St. between O St. and G St.

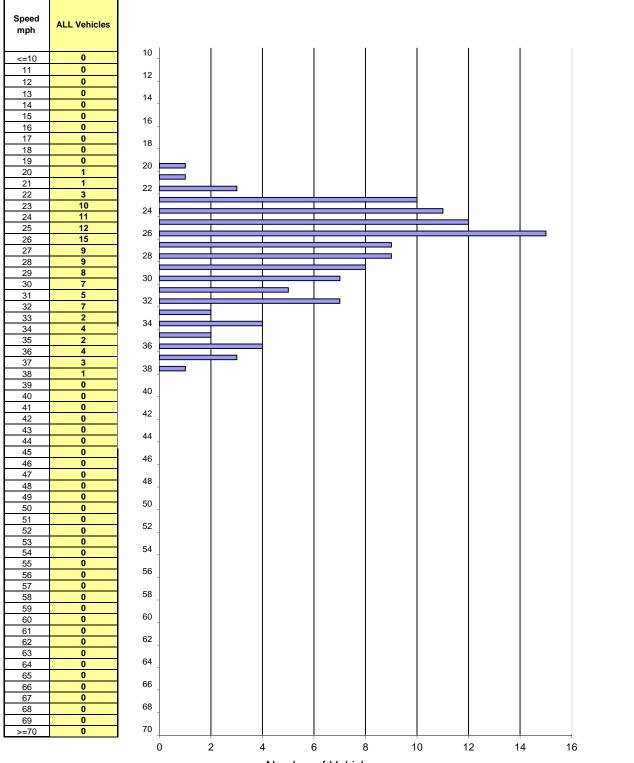
City of Antioch

Survey Time: 1330-1445 Street Width: 35 Ft

DATE: 11/6/2014 Location: 912 West 9th Street

DAY: Thursday Posted Speed: 25 MPH Project #: 14-7726-049

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	114	20-38	27 mph	32 mph	23 - 32	93	82%	4% / 5	15% / 16			

Segment #50: W 9th St. between G St. and A St.

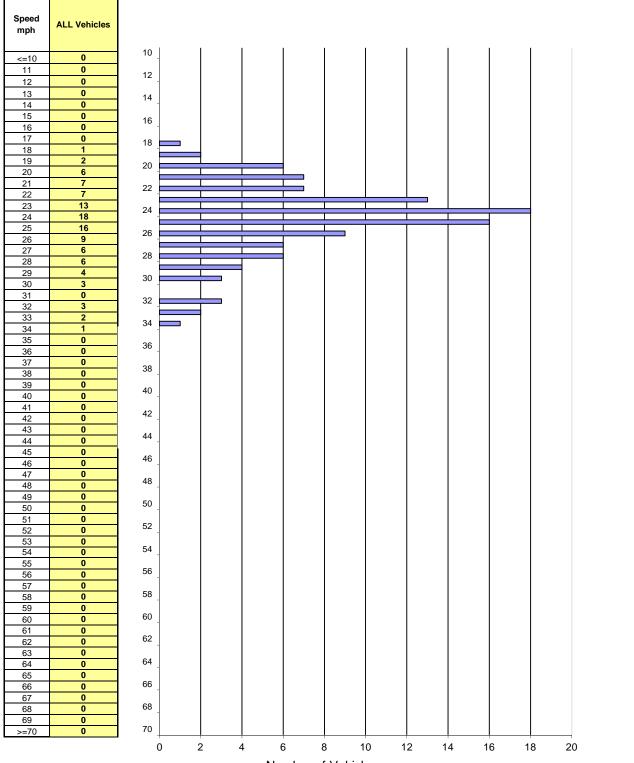
City of Antioch

Survey Time: 1030-1200 Street Width: 35 Ft

DATE: 11/6/2014 Location: 312 West 9th Street

DAY: Thursday Posted Speed: 25 MPH Project #: 14-7726-050

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
Class	50th 85th 10 MPH Percent in											
ALL	104	18-34	24 mph	28 mph	20 - 29	92	88%	2% / 3	9% / 9			

Segment #51: Pittsburg-Antioch (W 10th St.) between City Limits and Auto Center Dr.

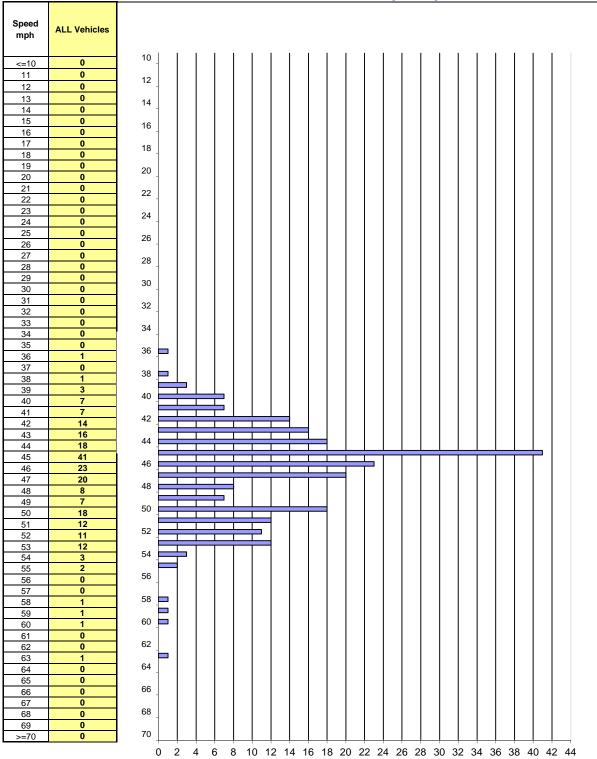
City of Antioch

Survey Time: 1055-1130 Street Width: 42 Ft

DATE: 11/7/2014 Location: 2484 West 10th Street

DAY: Friday Posted Speed: 50 MPH Project #: 14-7726-051

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	228	35-63	46 mph	51 mph	42 - 51	177	78%	8% / 19	15% / 32			

Segment #52: Putnam St. between Gentrytown Dr. and Contra Loma Blvd.

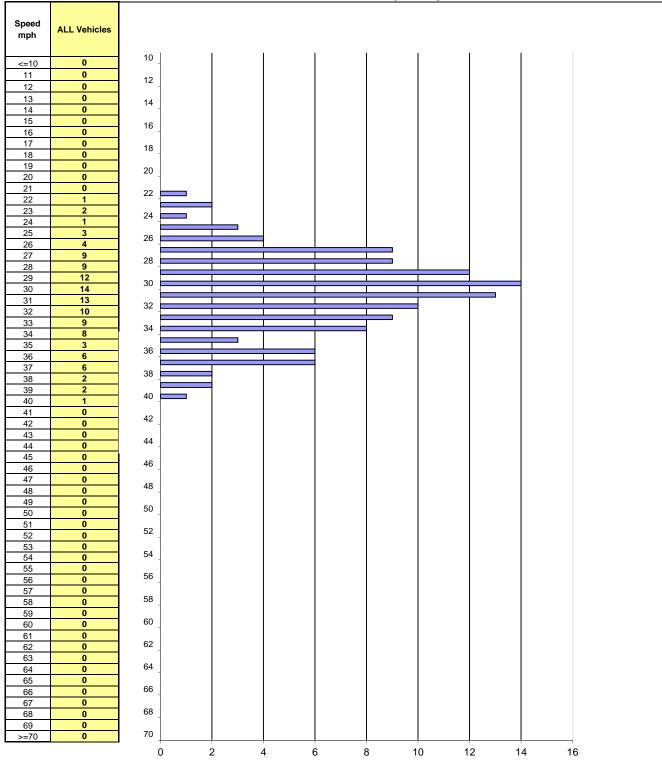
City of Antioch

Survey Time: 1100-1200 Street Width: 36 Ft

DATE: 11/14/2014 Location: 1219 Putnam Street

DAY: Friday Posted Speed: 25 MPH Project #: 14-7726-052

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace			
ALL	115	22-40	31 mph	35 mph	27 - 36	93	81%	9% / 11	10% / 11			

Segment #53: Putnam St. between Contra Loma Blvd. and Lone Tree Wy.

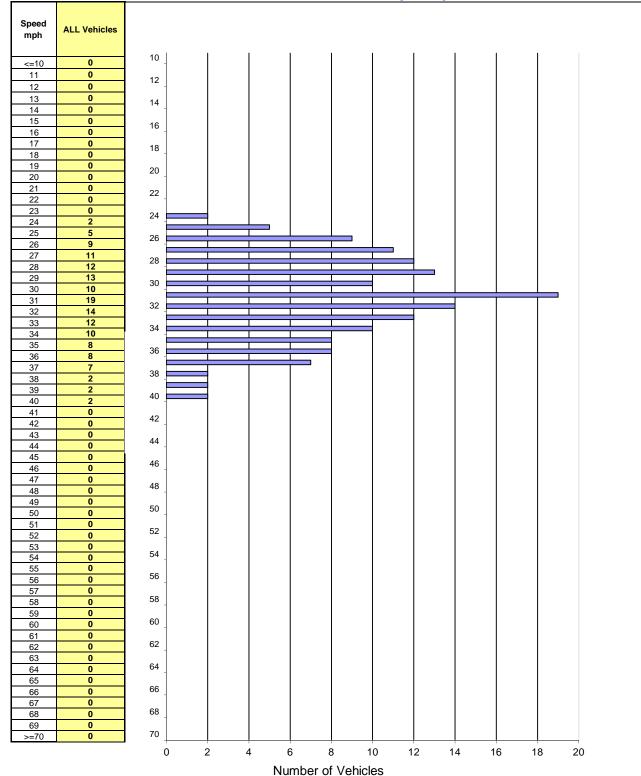
City of Antioch

Survey Time: 1220-1320 Street Width: 38 Ft

DATE: 11/14/2014 Location: 609 Putnam Street

DAY: Friday Posted Speed: 25 MPH Project #: 14-7726-053

Eastbound & Westbound Spot Speeds



SPEED PARAMETERS 10 MPH 85th 50th Percent in Class Count Range Percentile Percentile Pace Pace % / # Below Pace % / # Above Pace 146 31 mph 35 mph 26 - 35 118 81% 4% / 7

Segment #54: W. 2nd St. between L St. and G St.

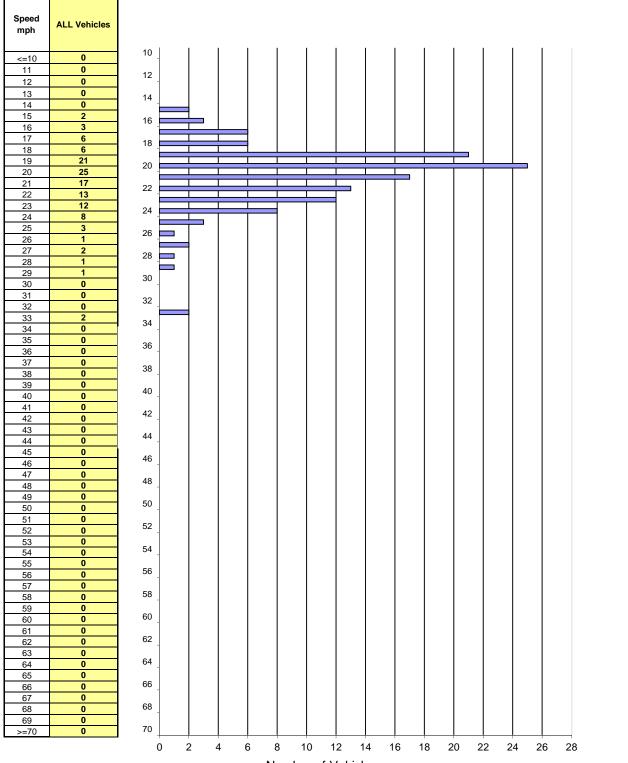
City of Antioch

Survey Time: 1000-1100 Street Width: 34 Ft

DATE: 11/5/2014 Location: 682 W. 2nd Street

DAY: Wednesday Posted Speed: 25 MPH Project #: 14-7726-054

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	ALL 123 15-33 20 mph 23 mph 16 - 25 114 93% 1% / 2 6% / 7											

Segment #55: W 6th St. between L St. and A St.

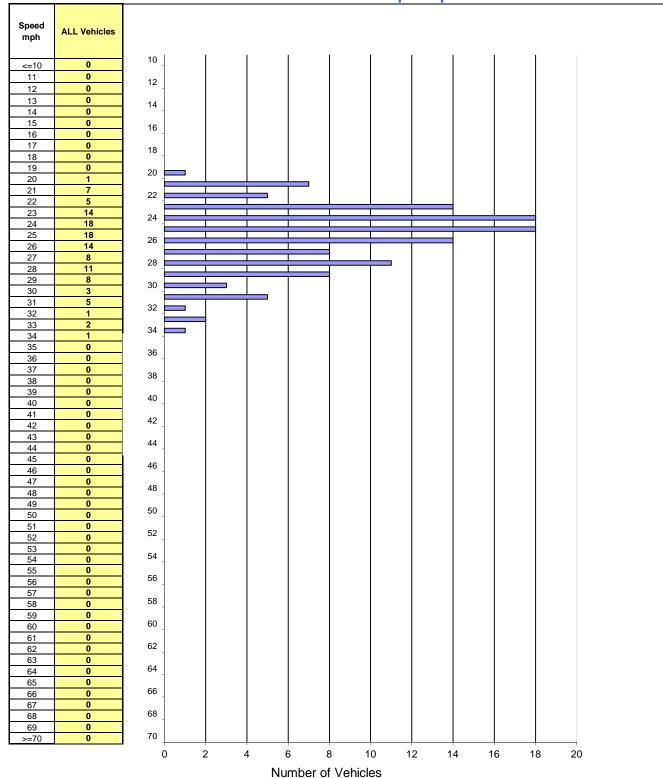
City of Antioch

Survey Time: 1400-1515 Street Width: 38 Ft

DATE: 11/5/2014 Location: 814 W. 6th Street

DAY: Wednesday Posted Speed: 25 MPH Project #: 14-7726-055

Eastbound & Westbound Spot Speeds



SPEED PARAMETERS 10 MPH 85th 50th Percent in Class Count Range Percentile Percentile Pace Pace % / # Below Pace % / # Above Pace ALL 116 25 mph 29 mph 21 - 30 106 91% 0% / 1 8% / 9

Segment #56: Somersville Rd. between SR-4 and Buchanan Rd.

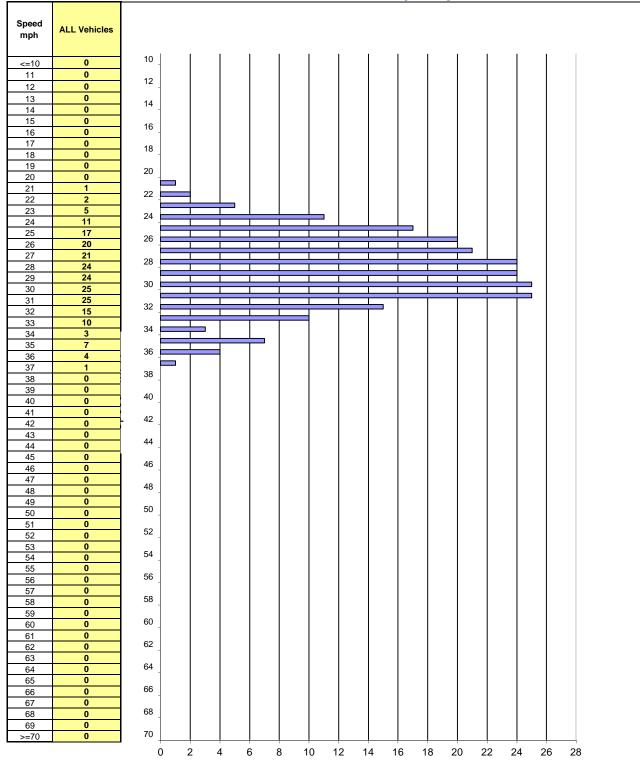
City of Antioch

Survey Time: 1245-1330 Street Width: 52 Ft

DATE: 11/25/2014 Location: 2548 Somersville Road

DAY: Tuesday Posted Speed: 35 MPH Project #: 14-7726-056

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	215	21-37	29 mph	32 mph	24 - 33	192	89%	3% / 8	7% / 15				

Segment #57: Somersville Rd. between Buchanan Rd. and James Donlon Blvd.

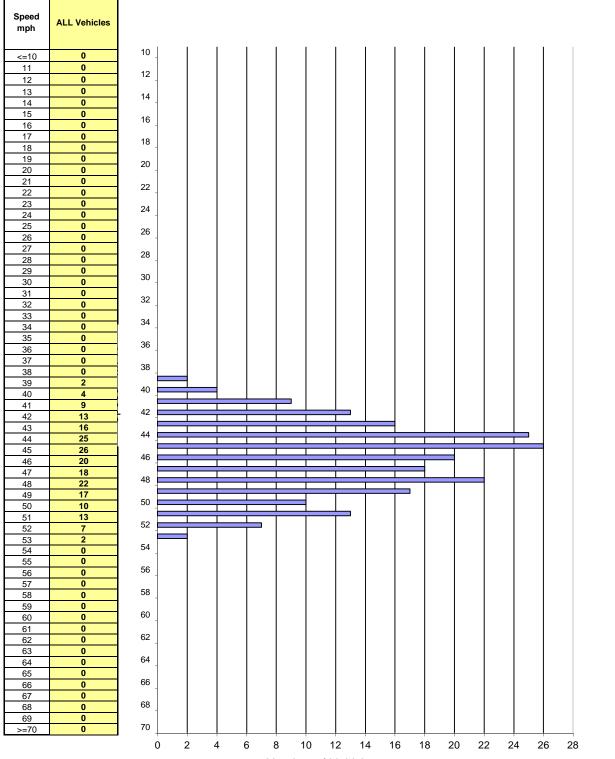
City of Antioch

Survey Time: 1340-1415 Street Width: 64 Ft

DATE: 11/25/2014 Location: 3558 Somersville Road

DAY: Tuesday Posted Speed: 35 MPH Project #: 14-7726-057

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	ALL 204 39-53 46 mph 50 mph 42 - 51 180 88% 7% / 15 5% / 9											

Segment #58: W 10th St. between Auto Center Dr. and L St.

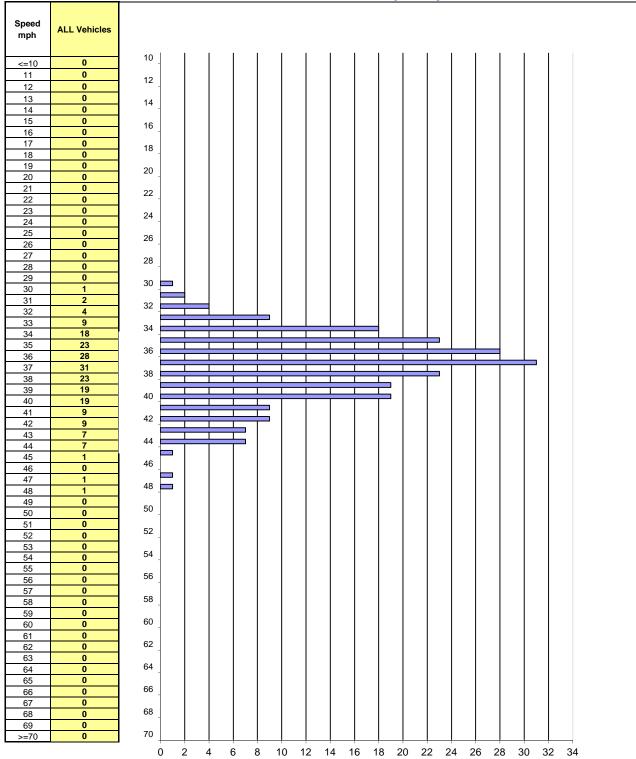
City of Antioch

Survey Time: 1210-1240 Street Width: 70 Ft

DATE: 11/6/2014 Location: 1212 West 10th Street

DAY: Thursday Posted Speed: 35 MPH Project #: 14-7726-058

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	ALL 212 30-48 37 mph 41 mph 33 - 42 188 89% 3% / 7 9% / 17											

Segment #59: W. 10th St. between L St. and A St.

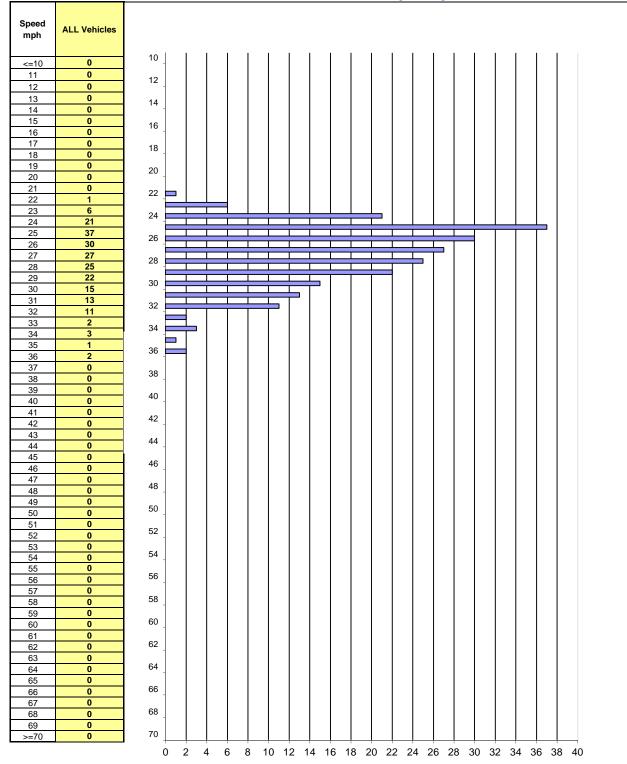
City of Antioch

Survey Time: 1455-1530 Street Width: 35 Ft

DATE: 11/6/2014 Location: 408 West 10th Street

DAY: Thursday Posted Speed: 25 MPH Project #: 14-7726-059

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS												
01	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	216	22-36	27 mph	30 mph	23 - 32	207	96%	0% / 1	4% / 8				

Segment #60: E. Tregallas Rd. between Lone Tree Wy. and Garrow Dr.

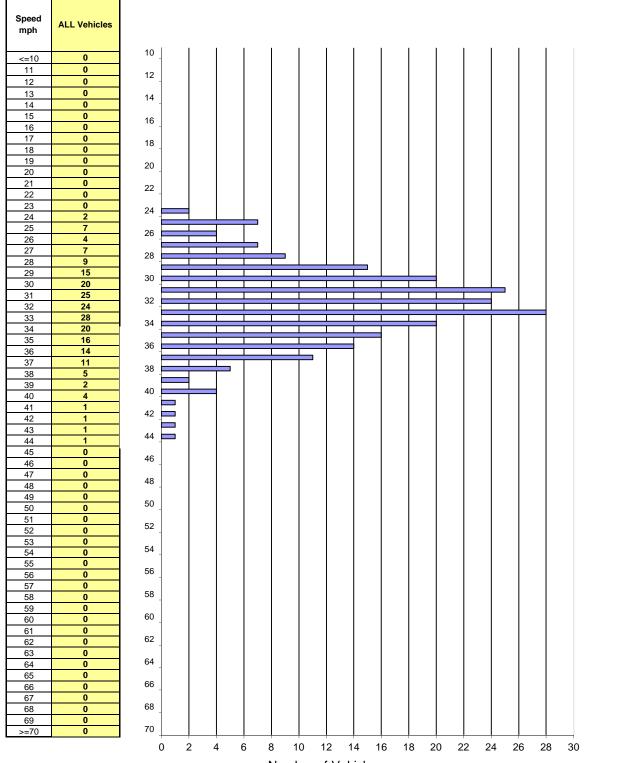
City of Antioch

Survey Time: 1355-1430 Street Width: 29 Ft

DATE: 11/13/2014 Location: 308 E. Tregallas Road

DAY: Thursday Posted Speed: 25 MPH Project #: 14-7726-060

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	ALL 217 24-44 32 mph 36 mph 28 - 37 182 84% 9% / 20 7% / 15											

Segment #61: E. Tregallas Rd. between Garrow Dr. and Hillcrest Ave.

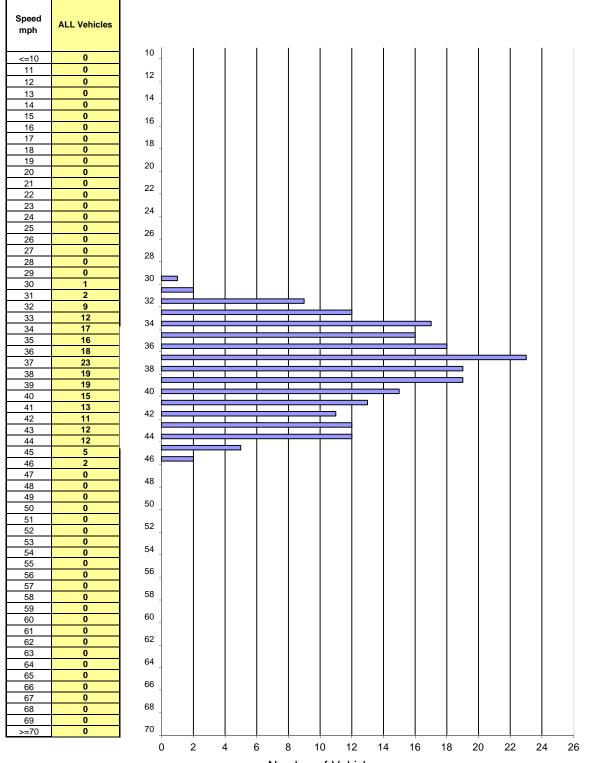
City of Antioch

Survey Time: 1440-1525 Street Width: 37 Ft

DATE: 11/13/2014 Location: E. Tregallas Road mib block between Harbour Drive and Windsor Drive

DAY: Thursday Posted Speed: 35 MPH Project #: 14-7726-061

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS												
	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	206	30-46	38 mph	43 mph	33 - 42	163	79%	5% / 12	16% / 31				

Segment #62: W. Tregallas Rd. between Garrow Dr. and Hillcrest Ave.

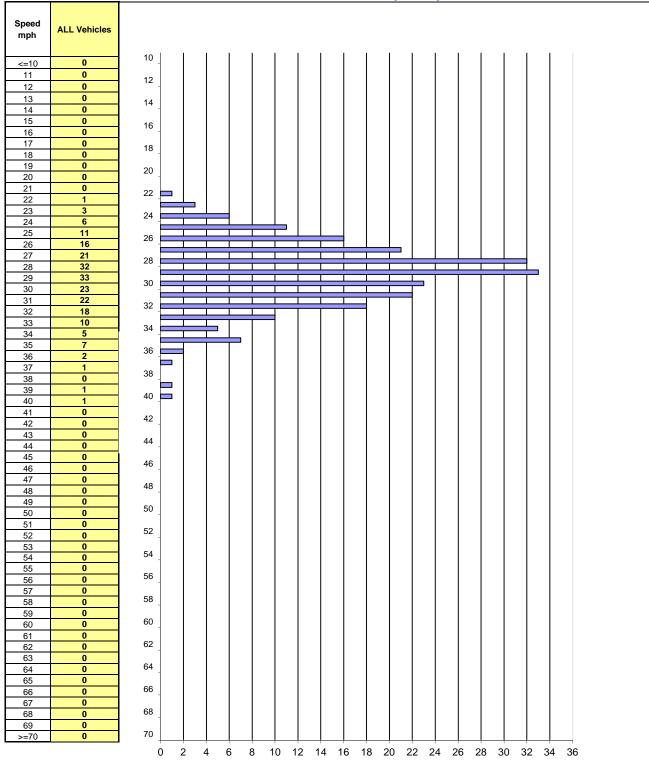
City of Antioch

Survey Time: 0900-0950 Street Width: 34 Ft

DATE: 11/14/2014 Location: 275 W. Tregallas Road

DAY: Friday Posted Speed: 25 MPH Project #: 14-7726-062

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS												
	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	213	22-40	29 mph	32 mph	24 - 33	192	90%	1% / 4	8% / 17				

Segment #63: Viera Ave. between A St. and Cavallo Rd.

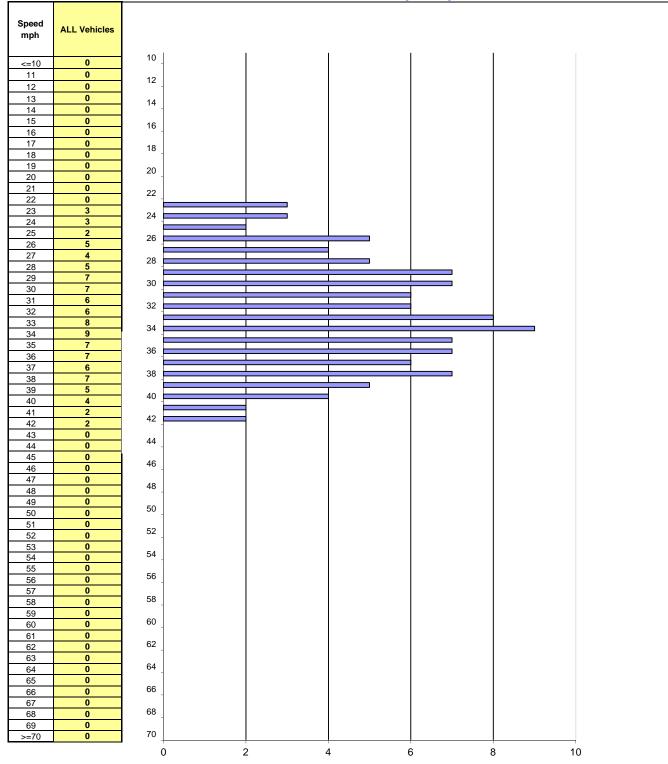
City of Antioch

Survey Time: 0945-1130 Street Width: 30 Ft

DATE: 11/4/2014 Location: 1509 Viera Avenue

DAY: Tuesday Posted Speed: 25 MPH Project #: 14-7726-063

Northbound & Southbound Spot Speeds



	SPEED PARAMETERS												
	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	105	23-42	33 mph	38 mph	29 - 38	70	67%	20% / 22	13% / 13				

Segment #64: Wilbur Ave. between A St. and Cavallo Rd.

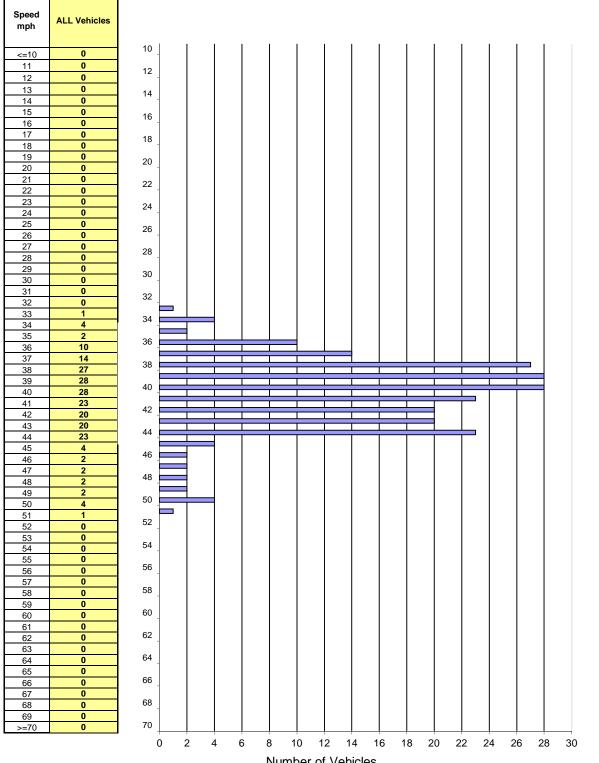
City of Antioch

Survey Time: 0900-0945 Street Width: 58 Ft

DATE: 11/5/2014 Location: 395 Wilbur Avenue

DAY: Wednesday Posted Speed: 40 MPH Project #: 14-7726-064

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS												
	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	217	33-51	40 mph	44 mph	36 - 45	197	91%	3% / 7	6% / 13				

Segment #65: Wilbur Ave. between Cavallo Rd. and 3100 ft. East of Cavallo Rd.

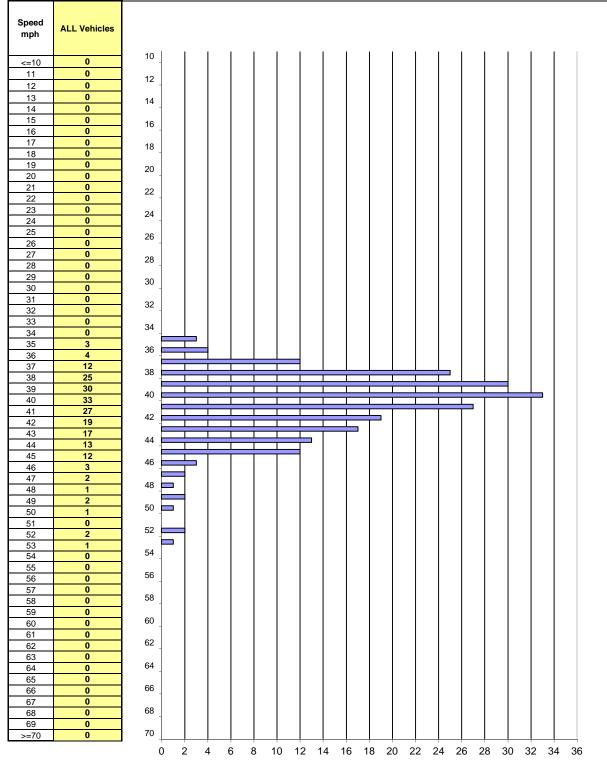
City of Antioch

Survey Time: 1410-1500 Street Width: 60 Ft

DATE: 11/4/2014 Location: Wilbur Avenue mid block between Cavallo Road and Minaker Drive

DAY: Tuesday Posted Speed: 40 MPH Project #: 14-7726-065

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS											
	50th 85th 10 MPH Percent in											
Class	Class Count Range Percentile Percentile Pace # in Pace Pace % / # Below Pace % / # Above Pace											
ALL	ALL 207 35-53 40 mph 44 mph 36 - 45 192 93% 1% / 3 6% / 12											

Segment #66: Wilbur Ave. between 3100 ft. East of Cavallo Rd. and City Limits

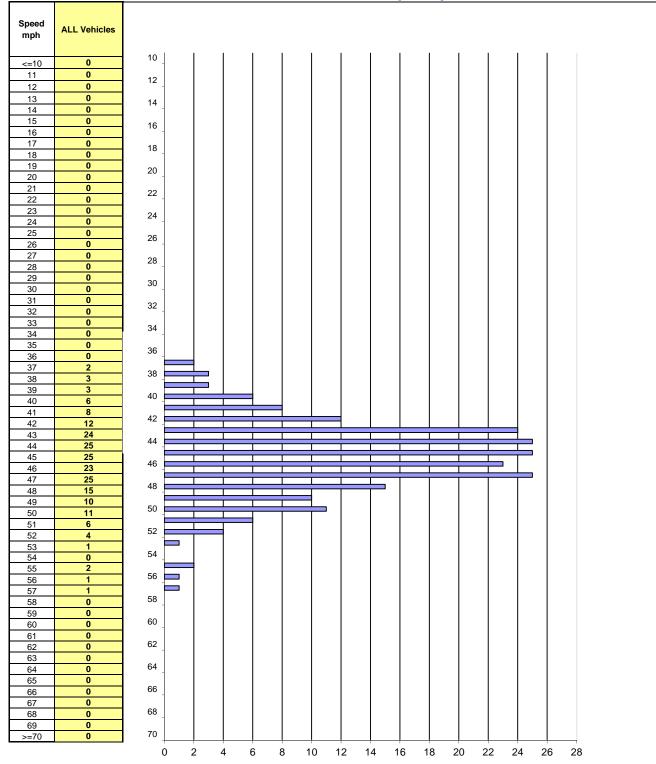
City of Antioch

Survey Time: 1145-1240 Street Width: 37 Ft

DATE: 11/4/2014 Location: 1253 Wilbur Avenue

DAY: Tuesday Posted Speed: 45 MPH Project #: 14-7726-066

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS												
	50th 85th 10 MPH Percent in												
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace				
ALL	207	37-57	45 mph	49 mph	41 - 50	178	86%	6% / 14	8% / 15				

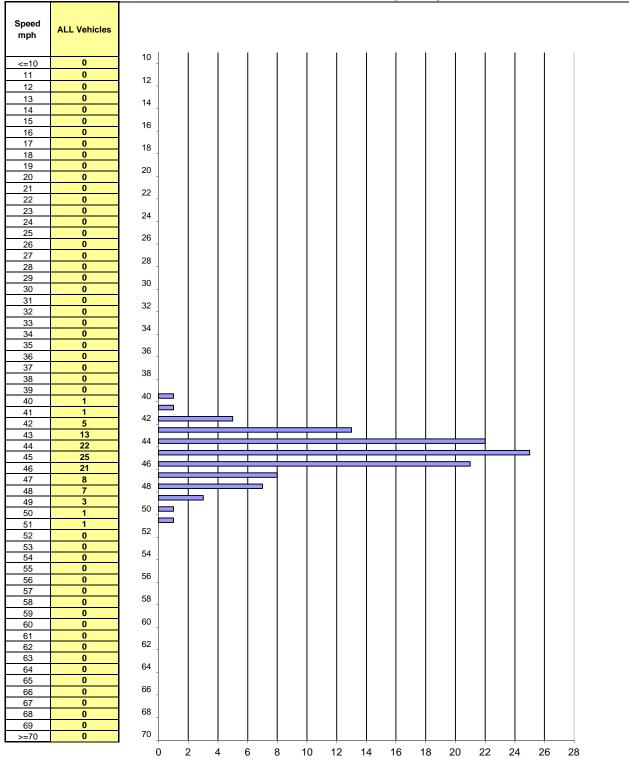
Segment #67: Wild Horse Rd. between Hillcrest Ave. and Slatten Ranch Rd.

City of Antioch

Survey Time: 1355-1535 Street Width: 48 Ft

DATE: 11/25/2014 Location: Wilde Horse Road 400 feet west of Meadow Lake Street
DAY: Tuesday Posted Speed: 45 MPH Project #: 14-7726-067

Eastbound & Westbound Spot Speeds



	SPEED PARAMETERS								
	50th 85th 10 MPH Percent in								
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace
ALL	108	40-51	45 mph	47 mph	40 - 49	106	98%	0% / 0	2% / 2

Segment #68: Worrell Rd. between Lone Tree Wy. and Garrow Dr.

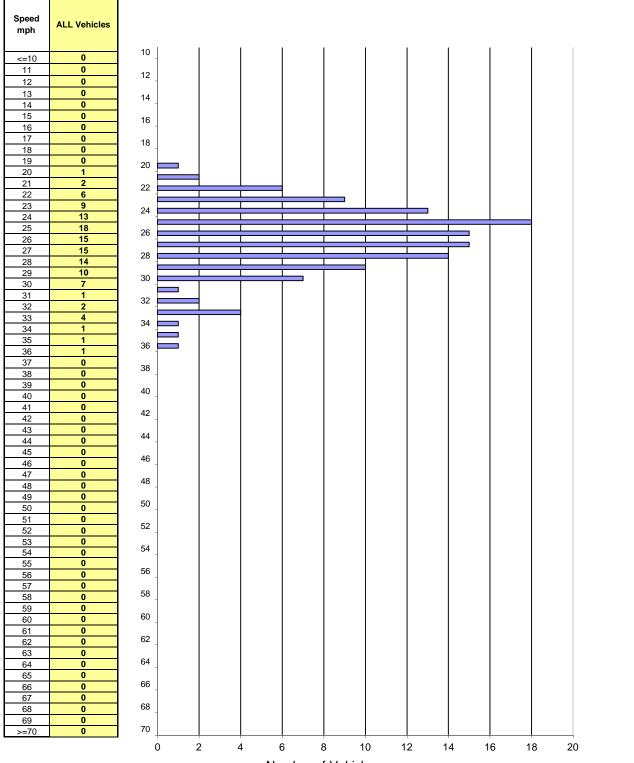
City of Antioch

Survey Time: 1315-1500 Street Width: 36 Ft

DATE: 11/21/2014 Location: 32 Worrell Road

DAY: Friday Posted Speed: 25 MPH Project #: 14-7726-068

Eastbound & Westbound Spot Speeds



SPEED PARAMETERS									
			50th	85th	10 MPH		Percent in		
Class	Count	Range	Percentile	Percentile	Pace	# in Pace	Pace	% / # Below Pace	% / # Above Pace
ALL	120	20-36	26 mph	29 mph	21 - 30	109	91%	0% / 1	9% / 10



Appendix B – Recommended Speed Survey Summary















Street: A Street

Limits: A Street from E Street to 10th Street

Direction: EB/WB



Survey Location

W 6th S

W 9th S

Red

E 8th St

_					
-	3	-	••	r	c

. Prevailing Speed Data	
Date /Location of Survey	710 A Street (11/6/2014)
Posted Speed Limit (mph)	25
# Speed Data Collected	215
85th Percentile (mph)	28
10 mph Pace	22 - 31
Percent in Pace	94%



Average Daily Traffic (ADT)	4,616
Length of Segment (mi.)	0.57
Street Classification	Arterial

C. Collision History

Date Range Covered Jan 09 - Dec 13

Total Accidents 13
Accident Rate (Acc/MVM) 2.7
Statewide Average Accident Rate 1.78

D. Roadway Conditions

Adjacent Land Use

Location is adjacent to several residential houses and a few restaurants. Location is vacant at the north side, and is adjacent to a park at south side.

Roadway Geometrics Between 4th St and 6th St, two lanes with a curve and with median only at the curve. North end

before the curve has on-street parking in both directions. Colored crosswalk at the intersection

of A St & 6th St.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25

mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident

rate.

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: A Street

Limits: A Street from 10th Street to 18th Street

Direction: NB/SB



Factors A. Prevailing Speed Data Date /Location of Survey 1513 A Street (11/19/2014) Posted Speed Limit (mph) 30 # Speed Data Collected 210 W 10th St 11 Celia's Mexican 85th Percentile (mph) 34 27 - 36 10 mph Pace Percent in Pace 92% B. Traffic Factors Average Daily Traffic (ADT) 15.298 Length of Segment (mi.) 0.43 Street Classification Arterial Survey Location C. Collision History Date Range Covered Jan 09 - Dec 13 W 18th St **Total Accidents** 35 Grocery Outlet E 19th St Accident Rate (Acc/MVM) 2.89 Statewide Average Accident Rate 2.47 D. Roadway Conditions Adjacent Land Use Mixed residential and commercial land usage. Two schools, a city park, a hospital, a church, a mortuary and four commercial squares located nearby. Roadway Geometrics Four lanes undivided with shared on-street parking in both directions. Between 16th St and 18th St, no on-street parking available. Schools are located near the intersection of A St & 15th St. Yellow pedestrian crossing at A St & 15th St. Comments Results of attached engineering & traffic survey information support maintaining the existing 30 mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident rate and proximity of schools.

Speed Limit Change?	No
Existing Speed Limit: 30 mph	Recommended Speed Limit: 30 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Knizel

Street: A Street

Limits: A Street from 18th Street to SR4

Signed: Chris D. Kinzel, PE

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	1927 A Street (11/19/2014)	W 17th St — Eastwood Plaza Shopping Center —
Posted Speed Limit (mph)	30	W 18th St Service Rd ⇒
# Speed Data Collected	211	W19th St F19th St
85th Percentile (mph)	34	Starbucks 💌
10 mph Pace	26 - 35	
Percent in Pace	93%	rigiteen Ave Deodar Ava Chesmut Ava Birch Ave Acacia Ave
referit in race	73/6	
D. Tueffic Footour		awton St
B. Traffic Factors	22.422	W Madill St
Average Daily Traffic (ADT)	23,632	Lindb AS
Length of Segment (mi.)	0.47	Survey Location
Street Classification	Arterial	Texas St Jack in the Box (1) Bryan Ave 5
		rake St
C. Collision History		Tilia Delta Hwy 28 4
Date Range Covered	Jan 09 - Dec 13	W Tregallas Rd
Total Accidents	67	
Accident Rate (Acc/MVM)	3.31	
Statewide Average Accident Rate	2.47	
D. Roadway Conditions		
Adjacent Land Use	Generally commercial and res	idential with a animal hospital and church located nearby.
Roadway Geometrics	Four lanes undivided with shar	red on-street parking in both directions between 18th St & Railroa
	Ave. Railroad tracks close to I	Railroad Ave. 4 lane divided roadway from Railroad Ave to SR 4
	with no on street parking. Cla	ss II bike lane available between Bryan Ave and SR4.
Comments	Results of attached engineerin	g & traffic survey information support maintaining the existing 30
Comments		ing the 85th percentile speed by 5mph due to the high accident
	rate.	ing and obtain per contains speece by simply due to the ingit accuration
Speed Limit Change?	No	
Existing Speed Limit: 30 mph	Recommended Speed Lin	mit: 30 mph
This survey conforms to Section 627 and 40802 o speed limit appropriate to facilitate the safe and o		3 of the California MUTCD and recommends a
Assumed and Authorized for release by The City	of Ameioria Dublic Warden	O PROFESSIONAL
Approved and Authorized for release by The City	OI AHUOCH PUBLIC VVORKS:	
Chris D. Kingel		(S No. 15347) (S)

Street: Auto Center Drive

Limits: Auto Center Drive from 4th Street to 10th Street

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	Auto Center Drive mid block	ck between 10th Street and 6th Street (11/10/2014)
Posted Speed Limit (mph)	35	
# Speed Data Collected	144	Bay Indoor RV
85th Percentile (mph)	39	Bay Indoor RV 0
10 mph Pace	32 - 41	i de la julio de l
Percent in Pace	91%	J. S. Z.
B. Traffic Factors		Survey Location W 6th St
Average Daily Traffic (ADT)	4,497	S W 7t
Length of Segment (mi.)	0.44	W Eig
Street Classification	Arterial	Holiday Lodge (a) Motel Antioch (a)
C. Collision History		W.10th St
Date Range Covered	Jan 09 - Dec 13	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Total Accidents	7	Francisco Skate of the state of the skate o
Accident Rate (Acc/MVM)	1.95	
Statewide Average Accident Rate	1.83	
D. Roadway Conditions		
Adjacent Land Use	Location is generally comme on the north west side of the	ercial and residential on the south and mostly vacant parcel of the lan ne roadway segment.
Roadway Geometrics	Four lanes with median.	
Comments		ring & traffic survey information support maintaining the existing 35 ading the 85th percentile speed by 5mph due to the high accident

Speed Limit Change?	No
Existing Speed Limit: 35 mph	Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Auto Center Drive

Limits: Auto Center Drive from 10th Street to SPRR

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	1553 Auto Center Drive	e (11/7/2014)
Posted Speed Limit (mph)	35	
# Speed Data Collected	189	
85th Percentile (mph)	37	W 10th St
10 mph Pace	31 - 40	Holiday Lodge Motel Antioch
Percent in Pace	98%	Survey Location
B. Traffic Factors		Aster D Aster D O Way To Way T
Average Daily Traffic (ADT)	10,863	Aster Dr. Coalco Way Wall Addition
Length of Segment (mi.)	0.42	
Street Classification	Arterial	Daisy Way
C. Collision History		Antioch Toyota
Date Range Covered	Jan 09 - Dec 13	
Total Accidents	H	
Accident Rate (Acc/MVM)	1.31	Sycama RiverStone Apartments
Statewide Average Accident Rate	2.47	

D.	Roadwa	y Conditions

Adjacent Land Use Location is generally commercial with several car dealerships between Costco Way & SPRR. A

residential apartment building is observed adjacent to the location.

Roadway Geometrics Four Lane undivided, until 150 ft from RR tracks. After then with median until RR tracks.

Comments Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limit.

 Speed Limit Change?
 No

 Existing Speed Limit: 35 mph
 Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommendate speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Knizel

Street: Auto Center Drive

Limits: Auto Center Drive from SPRR to SR4

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	1865 Auto Center Drive (11/25/2014)
Posted Speed Limit (mph)	35	
# Speed Data Collected	209	
85th Percentile (mph)	37	Verne Roberts Cir. Costco Antioch Costco Antioch
10 mph Pace	31 - 40	
Percent in Pace	94%	Survey Location Survey Location Survey Results
B. Traffic Factors		Oelia Gateway Blvo Lowe's Home Improvement Sycamore of
Average Daily Traffic (ADT)	21,339	California Delta Hwy
Length of Segment (mi.)	0.33	Mahogany Way
Street Classification	Arterial	
		Sport State (a) Big Lots
C. Collision History		Softers @ Big Lots
Date Range Covered	Jan 09 - Dec 13	Sport Big Lots Buchanan Rd
Total Accidents	14	
Accident Rate (Acc/MVM)	1.1	
Statewide Average Accident Rate	1.83	

D.	Roadway	Conditions

Adjacent Land Use Location is general commercial with a plaza and two shopping centers on each side. A residential

apartment building is observed close to SR4.

Roadway Geometrics 6 Lane Divided roadway

Comments Results of attached engineering & traffic survey information support maintaining the existing 35

mph speed limit.

Speed Limit Change? No

Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Buchanan Road

Limits: Buchanan Road from City Limits to Somersvi lle Road

Direction: EB/WB



Fa	ct	o	rs
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A. Prevailing Speed Data	
Date /Location of Survey	1784 Buchanan Road (11/17/2014
Posted Speed Limit (mph)	45
# Speed Data Collected	217
85th Percentile (mph)	52
10 mph Pace	44-53
Percent in Pace	88%

B. Traffic Factors

Average Daily Traffic (ADT)	18,526
Length of Segment (mi.)	0.64
Street Classification	Arterial

C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	12
Accident Rate (Acc/MVM)	0.55
Statewide Average Accident Rate	1.78

D. Roadway Conditions

Roadway Geometrics	Two lanes undivided with Class II bike lanes in both directions. Around 1,500 ft from the city

limit, eastbound divided into two lanes until Somersville Rd.

Comments Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit by downgrading the 85th percentile speed by 5mph due to the 10 mph pace.

Speed Limit Change? **No**

Existing Speed Limit: 45 mph Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Buchanan Road

Limits: Buchanan Road from Somersville Road to Gentrytown Drive

Direction: EB/WB



Гас	LUIS		
Α.	Prevailing	Speed	Data

Date /Location of Survey	2388 Buchanan Road (11/17/2014)
Posted Speed Limit (mph)	35
# Speed Data Collected	206
85th Percentile (mph)	39
10 mph Pace	33 - 42
Percent in Pace	95%



Average Daily Traffic (ADT)	9,971
Length of Segment (mi.)	0.34
Street Classification	Arterial

C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	21
Accident Rate (Acc/MVM)	3.37
Statewide Average Accident Rate	1.83



D. Roadway Conditions

Adjacent Land Use Location is generally commercial and residential, with a hospital and a shopping center.

Roadway Geometrics Four lanes with median. Class II bike lane in eastbound direction.

Comments Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limit and downgrading the 85th percentile speed by 5mph due to the high accident

rate.

Speed Limit Change? No

Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Knizel

Signed: Chris D. Kinzel, PE Title: Vice President, TJKM Transportation Consultants

Street: Buchanan Road

Limits: Buchanan Road from Gentrytown Drive to Contra Loma Blvd

Direction: EB/WB



F			

A. Prevailing Speed Data	
Date /Location of Survey	1304 Buchanan Road (11/7/2014)
Posted Speed Limit (mph)	35
# Speed Data Collected	221
85th Percentile (mph)	41
10 mph Pace	33 - 42
Percent in Pace	91%

B. Traffic Factors

Average Daily Traffic (ADT)	12,654
Length of Segment (mi.)	0.93
Street Classification	Arterial

C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	30
Accident Rate (Acc/MVM)	1.4
Statewide Average Accident Rate	1.83

D. Roadway Conditions

Adjacent Land Use Location is generally residential, with one church and a UPS store.

Roadway Geometrics Four lanes with median and horizontal and vertical curve. Bike lane on both sides. Yellow colored

crosswalk at Mission Dr.

Comments Results of attached engineering & traffic survey information support maintaining the existing 35

mph speed limit to downgrading the 85th percentile speed by 5mph due to the $10\,$ mph pace.

Speed Limit Change? No

Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Knizel
Signed: Chris D. Kinzel, PE

Street: Cavallo Road

Limits: Cavallo Road from E Tregallas Road to 18th Street

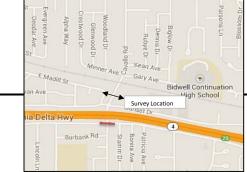
Direction: NB/SB



E 18th St

Factors

A. Prevailing Speed Data	
Date /Location of Survey	1930 Cavallo Road (11/10/2014)
Posted Speed Limit (mph)	25
# Speed Data Collected	123
85th Percentile (mph)	35
10 mph Pace	26 - 35
Percent in Pace	80%



B. Traffic Factors

Average Daily Traffic (ADT) 6,218

Length of Segment (mi.) 0.51

Street Classification Collector

C. Collision History

Date Range Covered Jan 09 - Dec 13
Total Accidents 18
Accident Rate (Acc/MVM) 3.10
Statewide Average Accident Rate 1.78

D. Roadway Conditions

Adjacent Land Use Location is generally residential.

Roadway Geometrics Two lane undivided (double yellow center line) with shared on-street parking on each side. At

the south side of Cavallo Road there is a overhead highway bridge. Yellow pedestrian crossing at

Tregallas Rd and Sunset Dr.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25

mph speed limit due to the residential density, associated pedestrian and bike activities, and high

accident rate.

Speed Limit Change?

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Cavallo Road

Limits: Cavallo Road from Wilbur Avenue to 18th Street

Chris D. Kingel

Signed: Chris D. Kinzel, PE

Direction: NB/SB



actors		
A. Prevailing Speed Data		
Date /Location of Survey	1625 Cavallo Road (11/10/2014)
Posted Speed Limit	35	Wildlife Refuge
# Speed Data Collected	214	errill Dr Wilbur Ave Wilbur Ave
85th Percentile	39	de Way
10 mph Pace	32 - 41	nady Ln
Percent in Pace	88%	sant PA Jaco
3. Traffic Factors		E 13th St. Marie Pre Discounting Discounti
Average Daily Traffic (ADT)	5,747	Bruce Bruce
Length of Segment (mi.)	0.51	E 16th S Survey Location S Lake Dr
Street Classification	Collector	E 18th St
C. Collision History		Parsons Ln Parsons Ln Biglow Biglow Denni Rub Alpha Way Evergreen Ave Deodar Av
Date Range Covered	Jan 09 - Dec 13	Biglow Dr. Dennis Dr. Rubye Dr. Blenwood Dr. Glenwood Dr. Alpha Way PB o
Total Accidents	22	
Accident Rate (Acc/MVM)	4.07	St Or Span Kean Ave
Statewide Average Accident Rate	2.47	
D. Roadway Conditions		
Adjacent Land Use	Location is generally northwest of Cavallo	residential with school and a church located nearby. Vacant land on PR
Roadway Geometrics	Four lanes undivided with shared on-street parking on south bound direction, from 13th Street to Wilbur Avenue bike lanes in both directions .Yellow Pedestrian crossing can be observed at intersection at 13th Street and Cavallo Road.	
Comments		engineering & traffic survey information support maintaining the existing solowing and the existing solowing the 85th percentile speed by 5mph due to the high accident
	No	
Speed Limit Change?		

Street: Contra Loma Blvd

Limits: Contra Loma Blvd from SR4 to Longview Drive

Direction: NB/SB



Fac	ctors
A.	Prevailing Speed Data

Date /Location of Survey	3019 Contra Loma Boulevard (11/14/2014)	
Posted Speed Limit	35	in
# Speed Data Collected	210	-A-
85th Percentile	40	
10 mph Pace	33 - 42	DAA BH
Percent in Pace	95%	200



Average Daily Traffic (ADT)	12,445
Length of Segment (mi.)	0.69
Street Classification	Arterial



Date Range Covered	Jan 09 - Dec 13
Total Accidents	36
Accident Rate (Acc/MVM)	2.29
Statewide Average Accident Rate	1.83

D. Roadway Conditions

Adjacent Land Use Location is residential and retail. One church between Putnam St and Longview Rd.

Roadway Geometrics Four lanes divided with median, Class II bike lanes on both sides between Longview Drive and

Fitzuren Road. At SR4 four lanes merge into two before the bridge.

Comments Results of attached engineering & traffic survey information support maintaining the existing 35

mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident

rate.

Speed Limit Change? No

Existing Speed Limit: 35 mph	Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Contra Loma Blvd

Limits: Contra Loma Blvd from Longview Drive to James Donlon Blvd

Direction: NB/SB



Fa	ctors
A.	Prevailing Speed Data

<u> </u>			
Date /Location of Survey	3354 Contra Loma Bouleva	3354 Contra Loma Boulevard (11/12/2014)	
Posted Speed Limit	35	NB 7	
# Speed Data Collected	207	- /	
85th Percentile	38	R _G G _G	
10 mph Pace	31 - 42	mani st	
Percent in Pace	99%	a Way	

B. Traffic Factors

Average Daily Traffic (ADT)	8,616
Length of Segment (mi.)	0.52
Street Classification	Arterial

C. Collision History

Date Range Covered Jan 09 - Dec 13
Total Accidents II
Accident Rate (Acc/MVM) 1.35
Statewide Average Accident Rate 1.83

D. Roadway Conditions

Adjacent Land Use Residential neighborhood with two churches located in the vicinity.

Roadway Geometrics Four lanes divided with median, Class II bike lanes on both side.

Comments Results of attached engineering & traffic survey information support maintaining the existing 35

mph speed limit by downgrading the 85th percentile speed by 5mph due to residential density.

Speed Limit Change? No

Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE

Street: Dallas Ranch Road

Limits: Dallas Ranch Road from Lone Tree Way to Mokelomne Drive

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	Dallas Ranch Road 350	feet north of Stonecrest Drive (11/12/2014)
Posted Speed Limit	45	Asilomar Dr.
# Speed Data Collected	152	Carried May
85th Percentile	45	Lone Tree Way
10 mph Pace	37 - 46	Dallas Ranch Middle School
Percent in Pace	91%	Aft Hamilton Dr Aft Claryton Rd Aft Hamilton Dr Aft Amilton Dr
B. Traffic Factors		Paddet base Man Deer Asses Man Deer
Average Daily Traffic (ADT)	7,890	Survey Location
Length of Segment (mi.)	1.03	Stonecrast ch. Conness Way Demonstrate Elementary School
Street Classification	Arterial	Kern Mountain Way
C. Collision History		Tools of Too
Date Range Covered	Jan 09 - Dec 13	Ost Naven Way Ost Finger Peak Way Ost State Way
Total Accidents	22	Moket.
Accident Rate (Acc/MVM)	1.49	Oak Crest Way 20 Colosseum Way 20 Coloss
Statewide Average Accident Rate	1.83	<u> </u>
D. Roadway Conditions		
Adjacent Land Use	Location is generally res Dr.	sidential, with a middle school between Mt Hamilton Dr and Cache Peak
Roadway Geometrics		and Class II bike lanes in both directions. Yellow pedestrian crossings in he Peak Dr & Dallas Ranch Rd, Mt Hamilton Dr & Dallas Ranch Rd.
Comments	Results of attached engi mph speed limit.	ineering & traffic survey information support maintaining the existing 45
Speed Limit Change?	No	
Existing Speed Limit: 45 mph	Recommended Spe	eed Limit: 45 mph

Title: Vice President, TJKM Transportation Consultants

Segment # 14

Street: Davison Drive

Limits: Davison Drive from Lone Tree Way to Hillcrest Avenue

Direction: EB/WB



Factors

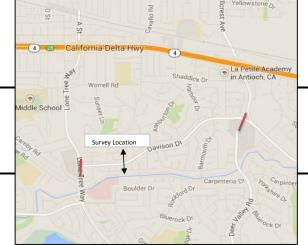
A. Prevailing Speed Data		
Date /Location of Survey	505 Burwood Way	(11/20/2014)
Posted Speed Limit	35	
# Speed Data Collected	219	DSt
85th Percentile	39	
10 mph Pace	32 - 41	4 28
Percent in Pace	95%	

B. Traffic Factors

Average Daily Traffic (ADT)	8,136
Length of Segment (mi.)	1.27
Street Classification	Arterial

C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	39
Accident Rate (Acc/MVM)	2.07
Statewide Average Accident Rate	1.83



D. Roadway Conditions

Adjacent Land Use	Location is generally residential, with a commercial square on the east side and west side of the
	roadway segment.

Roadway Geometrics

Four lanes with median, A Class II bike lane in the eastbound direction and a on-street parking in the westbound direction until Mountaire St, then bike lanes in both direction. Horizontal curve

in the roadway.

Comments Results of attached engineering & traffic survey information support maintaining the existing 35

mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident

rate.

Speed Limit Change? No

Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Deer Valley Road

Limits: Deer Valley Road from Hillcrest Avenue to Lone Tree Way

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	Deer Valley Road 900 fee	et south of Rocky Point Drive (11/25/2014)
Posted Speed Limit	45	Shaddick Dr Antioch, CA
# Speed Data Collected	207	Hadel
85th Percentile	50	Control of the contro
10 mph Pace	43 - 52	Davison Or E
Percent in Pace	90%	OBJUST TO THE PROPERTY OF THE
		oulder Dr
B. Traffic Factors		vietnamese Vietnamese
Average Daily Traffic (ADT)	12,936	Bluerock DI 28 Fook DI 29 Fook DI
Length of Segment (mi.)	1.85	Survey Location
Street Classification	Arterial	Buckshin Dr Buckshin Dr
		Asiomar Dr. Taraban May
C. Collision History		Hillton Christian
Date Range Covered	Jan 09 - Dec 13	DP HUMB Mt Hamilton Q
Total Accidents	80	T Ave
Accident Rate (Acc/MVM)	1.83	Dr Lone Tree Way
Statewide Average Accident Rate	1.83	
-		
D. Roadway Conditions		
Adjacent Land Use	Location is generally resid	dential area with a church and a school on the south side, and a
	commercial square on the	e north side.
Roadway Geometrics	Four lanes with median :	and left turn channel and Class II bike lanes in both direction. Yellow
Roadway Geometries		sing at the intersection of Lone Tree Way & Deer Valley Rd. Horizontal
	curve in roadway.	, ,

Comments	Results of attached engineering & traffic survey information support maintaining the existing 45
	mph speed limit by downgrading the 85th percentile speed by 5mph due to proximity of school
	and residential density.

Speed Limit Change?	No
Existing Speed Limit: 45 mph	Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Deer Valley Road

Limits: Deer Valley Road from Lone Tree Way to Mammouth Way

Direction: NB/SB

Factors



A.	Prevailing	Speed	Data

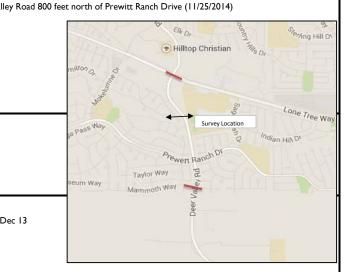
Date /Location of Survey	Deer Vall
Posted Speed Limit	45
# Speed Data Collected	207
85th Percentile	48
10 mph Pace	40 - 52
Percent in Pace	98%

B. Traffic Factors

Average Daily Traffic (ADT) 15,120
Length of Segment (mi.) 0.81
Street Classification Arterial

C. Collision History

Date Range CoveredJan 09 - Dec 13Total Accidents38Accident Rate (Acc/MVM)1.69Statewide Average Accident Rate1.83



D. Roadway Conditions

Adjacent Land Use Location is generally residential area, with a high school and a few restaurants on the north side.

Roadway Geometrics Four lanes with median and Class II bike lanes in both direction. A yellow colored pedestrian

cross walk on Deer Valley Rd close to the school.

Comments Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit by downgrading the 85th percentile speed by 5mph due to residential density

and proximity of school.

Speed Limit Change? No

Existing Speed Limit: 45 mph Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Deer Valley Road

Limits: Deer Valley Road from Mammoth Drive to City Limits

Direction: EB/WB



Survey Location

Factors

A. Prevailing Speed Data	
Date /Location of Survey	6801 Deer Valley Road (11/17/2014)
Posted Speed Limit	45
# Speed Data Collected	206
85th Percentile	50
10 mph Pace	42 - 51
Percent in Pace	85%



Average Daily Traffic (ADT) 7,442

Length of Segment (mi.) 1.23

Street Classification Arterial

C. Collision History

Date Range CoveredJan 09 - Dec 13Total Accidents11Accident Rate (Acc/MVM)0.66Statewide Average Accident Rate1.78

D. Roadway Conditions

Adjacent Land Use Location is mostly vacant with a medical center and a high school on the northeast side.

Roadway Geometrics Four lanes with median and Class II bike lanes in both direction. Slowly merge into two lanes

undivided(double yellow center line) after Sand Creek Rd. white edgeline in both directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit due to the proximity of school.

Speed Limit Change? No

Existing Speed Limit: 45 mph Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Delta Fair Blvd

Limits: Delta Fair Blvd from City Limits to Belle Drive

Direction: EB/WB



WinCo Foods 🖲

Survey Location

Buchanan Rd

Buchanan Rd

Fact	tors	
------	------	--

A. Prevailing Speed Data		
Date /Location of Survey	4545 Delta Fair Boulevard (11/21/2014)	
Posted Speed Limit	35	_
# Speed Data Collected	164	
85th Percentile	39	1
10 mph Pace	31 - 40	
Percent in Pace	92%	

B. Traffic Factors

Average Daily Traffic (ADT) 19,588

Length of Segment (mi.) 0.27

Street Classification Collector

C. Collision History

Date Range CoveredJan 09 - Dec 13Total Accidents6Accident Rate (Acc/MVM)0.62Statewide Average Accident Rate1.83

D. Roadway Conditions

Adjacent Land Use Location is mostly vacant, with a business park on the south side.

Roadway Geometrics Four lanes with median, and a pedestrian cross walk at the entrance (exit) of the business park.

Comments Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limit by downgrading the 85th percentile speed by 5mph due to the 10 mph pace.

Speed Limit Change? No

Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE Title: Vice President, TJKM Transportation Consultants

Street: Delta Fair Blvd

Limits: Delta Fair Blvd from Belle Drive to Kendree Street

Direction: EB/WB



		THORS
Factors		
A. Prevailing Speed Data		
Date /Location of Survey	4325 Delta Fair Boulevard (11/21/2014)	
Posted Speed Limit	30	
# Speed Data Collected	181	
85th Percentile	38 29 - 38	Century Or
10 mph Pace	29 - 38	Century Ct
Percent in Pace	85%	Olive Garden (Y)
B. Traffic Factors		Silva S. La Silva
Average Daily Traffic (ADT)	19,177	4 3 3
Length of Segment (mi.)	19,177 0.33 Arterial	Pelta Fair Blud
Street Classification		Fairvie
C. Collision History	Reimche Dr	
Date Range Covered	Jan 09 - Dec 13	
Total Accidents	25	chanan Bd
Accident Rate (Acc/MVM)	2.15	Un Rg &
Statewide Average Accident Rate	2.47	
D. Roadway Conditions		
Adjacent Land Use	Location is generally residential area with a elementa	ry school on the north side.
Roadway Geometrics	Four lanes undivided with shared on-street parking in walk at the entrance (exit) of the school. Many drive	·
Comments	Results of attached engineering & traffic survey inform mph speed limit by downgrading the 85th percentile 25mph School Zone within the segment)	

Speed Limit Change	?
--------------------	---

Existing Speed Limit: 30 mph Recommended Speed Limit: 30 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Knizel
Signed: Chris D. Kinzel, PE

Street: Delta Fair Blvd

Limits: Delta Fair Blvd from Kindree Street to Somersville Road

Direction: EB/WB



		THE STATE OF THE S
Factors		
A. Prevailing Speed Data		
Date /Location of Survey	3486 Delta Fair Bouleva	ard (11/21/2014)
Posted Speed Limit	30	Costco Antioch •
# Speed Data Collected	210	Century Costco Antioch Costco Antioch
85th Percentile	34	Olive Garden (1)
10 mph Pace	27 - 36	Delta Gaterial Blvd Lowe's Home
Percent in Pace	90%	
		Silva St. La Silva St. California Delta Wwy.
B. Traffic Factors		Survey Location
Average Daily Traffic (ADT)	20,964	Bent-A-Center
Length of Segment (mi.)	0.54	*he D _r
Street Classification	Arterial	ull Dr Buchanan Rd
		Un Rd Jack Dr E Ele
C. Collision History		in a way
Date Range Covered	Jan 09 - Dec 13	
Total Accidents	36	
Accident Rate (Acc/MVM)	1.75	
Statewide Average Accident Rate	1.83	
D. Roadway Conditions		
Adjacent Land Use	• •	ommercial area, with a shopping center on the south side and a hospital or
	the north side. An apar	tment property on the southwest side.
	e i si e	
Roadway Geometrics	Four lanes with median	. Slight horizontal curve between the mall entrance and Fairview Dr.
Comments	~	ineering & traffic survey information support maintaining the existing 30
	mph speed limit by dow	vngrading the 85th percentile speed by 5mph due to the 10 mph pace.
Speed Limit Change?	No	

Speed Limit Change?	No
Existing Speed Limit: 30 mph	Recommended Speed Limit: 30 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Knizel

Street: Delta Fair Blvd

Limits: Delta Fair Blvd from Somersville Road to Buchanan Road

Direction: NB/SB

Factors



A.	Prevailing Speed Data
	Date /Location of Survey

Delta Fair Boulevard 400 feet south of San Jose Drive (11/21/2014)

Posted Speed Limit 30
Speed Data Collected 209
85th Percentile 36
10 mph Pace 28 - 37

92%

B. Traffic Factors

Percent in Pace

Average Daily Traffic (ADT) 14,668

Length of Segment (mi.) 0.28

Street Classification Arterial

Olive Garden (1)

Delta Caterial BIVO

Lowe's Home improvement

Californial Delta Hwy

Survey Location

Survey Location

Big Lots

Buchanan Rd

Coper Dr Loger Benefit Rd

Coper Dr Log

C. Collision History

Date Range Covered Jan 09 - Dec 13

Total Accidents40Accident Rate (Acc/MVM)5.40Statewide Average Accident Rate2.47

D. Roadway Conditions

Adjacent Land Use Mostly commercial land usage with many driveways in the roadway segment

Roadway Geometrics Four lanes undivided.

Comments Results of attached engineering & traffic survey information support maintaining the existing 30

mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident

rate.

Speed Limit Change? No

Existing Speed Limit: 30 mph Recommended Speed Limit: 30 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: East 18th Street

Limits: East 18th Street from A Street to Cavallo Road

Direction: EB/WB



Factors

A. Prevailing Speed Data

Date /Location of Survey 34 East 18th Street (11/7/2014)

Posted Speed Limit 30
Speed Data Collected 161
85th Percentile 36
10 mph Pace 29 - 38
Percent in Pace 93%



B. Traffic Factors

Average Daily Traffic (ADT) 18,270

Length of Segment (mi.) 0.50

Street Classification Arterial

C. Collision History

Date Range Covered Jan 09 - Dec 13

 Total Accidents
 39

 Accident Rate (Acc/MVM)
 2.32

 Statewide Average Accident Rate
 2.47

D. Roadway Conditions

Adjacent Land Use Location is generally commercial and residential with a shopping center and a church on the east

and west side of the roadway segment

Roadway Geometrics Four lanes with a two-way left turn lane in between, undivided.

Comments Results of attached engineering & traffic survey information support maintaining the existing 30

mph speed limit by downgrading the 85th percentile speed by 5mph due to $10\ mph$ pace.

 Speed Limit Change?
 No

 Existing Speed Limit: 30 mph
 Recommended Speed Limit: 30 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Knizel

Street: East 18th Street

Limits: East 18th Street from Cavallo Road to Hillcrest Avenue

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	1721 E. 18th Street (11/10/2014)	
Posted Speed Limit	35	Sandy Way
# Speed Data Collected	222 Stake by	st
85th Percentile	41	
10 mph Pace	33 - 42	1
Percent in Pace	86% Survey Location Parsons Ln Rubye Parsons Ln	Yellowstone Dr
B. Traffic Factors	a d Dr wood Dr dd Dr	Yellowstone Dr Yosemite Dr Hill Dr Calavera
Average Daily Traffic (ADT)	15,376 Gary Ave	
Length of Segment (mi.)	0.51 Bidwell Continuation	Hillo
Street Classification	Arterial Sunset Dr	Hillorest Ave
C. Collision History	Jan 09 - Dec 13	Sunset Dr
Date Range Covered		La Petite Academy in Antioch, CA
Total Accidents	26 Lynn Ave	In Antidoci, CA
Accident Rate (Acc/MVM)	1.82	
Statewide Average Accident Rate	2.47	
D. Roadway Conditions		
Adjacent Land Use	Mixed residential and commercial land usage with small parcels of vacant	lands.
Roadway Geometrics	Four lane undivided until Blossom Dr. Divided between Blossom Dr and	Hillcrest Ave.
Comments	Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limit by downgrading the 85th percentile speed by 5mph due to the 10 mph pace.	

Speed Limit Change?	No
Existing Speed Limit: 35 mph	Recommended Speed Limit: 35 mph
This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a	

speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: East 18th Street

Limits: East 18th Street from Hillcrest Avenue to City Limits

Direction: NB/SB

Adjacent Land Use

Comments



A. Prevailing Speed Data		
Date /Location of Survey	3022 E. 18th Street (11/	/4/2014)
Posted Speed Limit	45	ch Dunes National Ife Refuge
# Speed Data Collected	230	Wilbur Ave Wilbur Ave
85th Percentile	50	Jacobsen St Sg
10 mph Pace	37 - 59	a Ave
Percent in Pace	81%	E TBth St
		Yellowstone Op Survey Location
3. Traffic Factors		TA Ave
Average Daily Traffic (ADT)	10,531	Oakley Rd
Length of Segment (mi.)	1.93	La Petite Academy in Antioch, CA
Street Classification	Arterial	a all-three lines
C. Collision History		Staffower Dr
Date Range Covered	Jan 09 - Dec 13	
Total Accidents	34	
Accident Rate (Acc/MVM)	0.92	
Statewide Average Accident Rate	1.83	

Roadway Geometrics	Four lanes with median from Hillcrest Ave to Hargrove St. Then from Hargrove St to Viera Ave,
	two through lanes in east bound direction, one through lane in west bound direction with a two-
	way left turn lane. Then four lanes with median until city limits.

school, a cemetery and a park in between.

Results of attached engineering & traffic survey information support maintaining the existing 45

Location is generally residential area on the west side and open space on the east side. With a

mph speed limit by downgrading the 85th percentile speed by 5mph due to proximity of school and residential density.

Speed Limit Change?	No
Existing Speed Limit: 45 mph	Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Knizel

Signed: Chris D. Kinzel, PE Title: Vice President, TJKM Transportation Consultants

Street: Fitzuren Road

Limits: Fitzuren Road from G Street to Contra Loma Blvd

Direction: EB/WB



Direction: EB/WB		CHITORNIA
Factors		
A. Prevailing Speed Data		
Date /Location of Survey	995 Fitzuren Road (11/7/2014)	
Posted Speed Limit	30	7
# Speed Data Collected	217 Inspiring You Ministries Inc	W Madil
85th Percentile	37	
10 mph Pace	28 - 37	
Percent in Pace	86%	Marsh Elementary School
B. Traffic Factors	ly-Moore Paints (a)	4 4 8
Average Daily Traffic (ADT)	11,739 O.35 Pizza Hut (Survey Location	ra 👭 ర
Length of Segment (mi.)		H _O
Street Classification	Local St Francis Dr San Carlos Dr	
C. Collision History	Jan 09 - Dec 13	El Rey St Minta Ln
Date Range Covered	Jan 09 - Dec 13	
Total Accidents	8	
Accident Rate (Acc/MVM)	1.06	
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Mostly commercial neighborhood with a few units of apartments. A vicinity.	church is located in the
Roadway Geometrics	Two lanes undivided (double yellow center line), shared on-street parking available only in front of apartment units (on the east bound lane), many drive ways.	
Comments	Results of attached engineering & traffic survey information support maintaining the existing 30 mph speed limit by downgrading the 85th percentile speed by 5mph due to the 10 mph pace.	
Speed Limit Change?	No	
·		

Speed Limit Change?	No
Existing Speed Limit: 30 mph	Recommended Speed Limit: 30 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Street: West 4th Street

Limits: West 4th Street from Somersville Road to L Street

Direction: EB/WB



			Hok
Factors			
A. Prevailing Speed Data			
Date /Location of Survey	1300 W. 4th Street (11/5/20	14)	
Posted Speed Limit	35	1	
# Speed Data Collected	134	Bay Indoor RV & Boat Storage	
85th Percentile	38		≥ Sp Antioch Police
10 mph Pace	30 - 39	1	W 4th St
Percent in Pace	89%	\$ 1	# -
		Survey Location	A St
B. Traffic Factors		W 6th St	W 6th
Average Daily Traffic (ADT)	5,150	0 St	W 7th St
Length of Segment (mi.)	0.46	-W 10th St	W Eighth St
Street Classification	Collector	W. Tourist	W 9th
<u> </u>		W 10th St	W 10th St
C. Collision History			
Date Range Covered	Jan 09 - Dec 13	Antioch	n Flea Market 🙆
Total Accidents	5		
Accident Rate (Acc/MVM)	1.15		
Statewide Average Accident Rate	1.83		
D. Roadway Conditions			
Adjacent Land Use	- ,	ial and residential area. With a manufacturing curve. City Police Dept. close to the intersect d nearby.	
Roadway Geometrics	Divided 4 lane roadway with	a horizontal curve between 6th St and 0 St.	
Comments	_	ing & traffic survey information support maint rading the 85th percentile speed by 5mph due	
Speed Limit Change?	No		

Speed Limit (Change?				No
Existing Sp	eed Lin	nit: 35 mp	h		Recommended Speed Limit: 35 mph
			407	 	

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: West 4th Street

Limits: West 4th Street from L Street to C Street

Direction: EB/WB



Factors A. Prevailing Speed Data Date /Location of Survey 608 W. 4th Street (11/5/2014) Posted Speed Limit 25 # Speed Data Collected 118 85th Percentile 26 Survey Location 10 mph Pace 18 - 27 Percent in Pace 92% B. Traffic Factors W 7th St Average Daily Traffic (ADT) 1,289 W Eighth St Length of Segment (mi.) 0.60 W 10th St Street Classification Collector W 11th St C. Collision History W 14th St Date Range Covered Jan 09 - Dec 13 Contra Costa **Total Accidents** 4 Accident Rate (Acc/MVM) 2.85 Statewide Average Accident Rate 1.78 D. Roadway Conditions Adjacent Land Use Location is generally residential area with a High school at H St. Roadway Geometrics Two lane undivided with shared on-street parking in both directions. Pink colored pedestrian Crosswalks are found at the intersections: 4 St & J St, 4 St & I St, 4 St & HSt, 4 St & G St, 4 St & F St. Comments Results of attached engineering & traffic survey information support maintaining the existing 25 mph speed limit.

Speed Limit Change? No	
Existing Speed Limit: 25 mph Recommended Sp	peed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: G Street

Limits: G Street from 2nd Street to W Tregallas Rd

Direction: NB/SB



		THE STATE OF THE S
Factors		
A. Prevailing Speed Data		
Date /Location of Survey	2317 G Street (11/10/2014)	Antioch Amtrak
Posted Speed Limit	25	52 w 3rd 5t
# Speed Data Collected	147	W 5th St 2 W 5th St 2 E 6
85th Percentile	31	W 7th St 22 22 00 55 E 7th Survey Location W Eighth St
10 mph Pace	22 - 31	W-10th St
Percent in Pace	86%	W 11th St 9 Park Ln 9 Park
B. Traffic Factors		Antioch High School W 17th St. W 17th St.
Average Daily Traffic (ADT)	5,750	W 18th St W 19th St
Length of Segment (mi.)	1.37	Railroad Avo
Street Classification	Collector	g You e inc Marsh Elementary School Texas St Texas St
C. Collision History		Fitzuren Rd UTregallas Rd W Tregallas Rd
Date Range Covered	Jan 09 - Dec 13	s Dr US Post Office ⊚
Total Accidents	41	
Accident Rate (Acc/MVM)	2.85	
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use		rea and downtown area. Downtown area locates between 2nd ween: 5th St and 6th St, 17th St and 18th St, Madill St and Delta
Roadway Geometrics	alone G St). Pink colored pedestr	on-street parking in both directions (except a small portion rian crossing at intersections: 2nd, 3rd, 4th, 5th St& G St. Yellov tersections: 14th, 17th, 18th St & G St, Newbury Ave & G St,, Tregallas Rd & G St.
Comments	5 5	traffic survey information support maintaining the existing 25 the 85th percentile speed by 5mph due to the high accident a pedestrian activities.
Speed Limit Change?	No	
Existing Speed Limit: 25 mph	Recommended Speed Limit	:: 25 mph
speed limit appropriate to facilitate the safe and o	·	the California MUTCD and recommends a
Approved and Authorized for release by The City	of Antioch Public Works:	No. 15347

Chris D. Kingel
Signed: Chris D. Kinzel, PE

Street: G Street

Limits: G Street from Putnam Street to James Donlon Blvd

Direction: NB/SB



Survey Location

F	a	c	t	o	r	•
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A. Prevailing Speed Data	
Date /Location of Survey	3240 G Street (11/14/2014)
Posted Speed Limit	25
# Speed Data Collected	137
85th Percentile	33
10 mph Pace	23 - 32
Percent in Pace	84%

B. Traffic Factors

Average Daily Traffic (ADT) 2,223

Length of Segment (mi.) I.08

Street Classification Collector

C. Collision History

Date Range CoveredJan 09 - Dec 13Total Accidents16Accident Rate (Acc/MVM)3.65Statewide Average Accident Rate1.78

D. Roadway Conditions

Adjacent Land Use Location is generally residential area, with a park on the east side and a elementary school located in the surrounding.

Roadway Geometrics Two lanes undivided with shared on-street parking in both directions. Yellow colored pedestrian

crossings at intersections: G St & Alger Rd, G St & Acorn Rd G St & Putnam St

Comments Results of attached engineering & traffic survey information support maintaining the existing 25

 $mph \ speed \ limit \ due \ to \ proximity \ of \ school, \ residential \ density \ and \ the \ high \ accident \ rate.$

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE

Street: Garrow Drive

Limits: Garrow Drive from E Tregallas Road to Davison Drive

Direction: NB/SB



Factors		
A. Prevailing Speed Data		Sunset Dr. Computer Days (a)
Date /Location of Survey	3316 Garrow Drive (11/13/2014)	East by Veneziana Company Company
Posted Speed Limit	25	butanist # 2 2
# Speed Data Collected	113	Decide Behave
85th Percentile	29	C Demonstry School
10 mph Pace	21 - 30	5 Morell Fil
Percent in Pace	93%	
		remain rel
B. Traffic Factors		Survey Location
Average Daily Traffic (ADT)	3,190	
Length of Segment (mi.)	0.85	Management of the Control of the Con
Street Classification	Collector	Promote D. F. Landon D. F. Landon D. F. Landon D. Landon
C. Collision History		Law Will Davidid Not
Date Range Covered	Jan 09 - Dec 13	Special Dr. Special Dr.
Total Accidents	17	
Accident Rate (Acc/MVM)	3.44	
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Location is generally residential area w surrounding	ith a church and a elementary school located in the
Roadway Geometrics		reet parking. Yellow-colored pedestrian crossing on Or, and three pedestrian crosswalks through Garrow Dr
Comments		c survey information support maintaining the existing 255th percentile speed by 5mph due to proximity of school, te.
Speed Limit Change?	No	
Existing Speed Limit: 25 mph	Recommended Speed Limit: 25	mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Street: Gentrytown Drive

Limits: Gentrytown Drive from Buchanan Road to Putnam Street

Direction: NB/SB



actors		
A. Prevailing Speed Data		
Date /Location of Survey	2823 Gentrytown Driv	/e (11/21/2014)
Posted Speed Limit	25	21624
# Speed Data Collected	189	Somersville Rent-A-Center Auburn Ln
85th Percentile	35	Towne Center
10 mph Pace	27 - 36	
Percent in Pace	89%	Mission Mission Elementary School
. Traffic Factors		Asy to Harris a way a series of the May to t
Average Daily Traffic (ADT)	12,242	Survey Location Survey Reading May Survey Re
Length of Segment (mi.)	0.59	Survey Location Survey Location (Fig. 1971)
Street Classification	Collector	Survey Location Service And
C. Collision History		Redwood Dr JG
Date Range Covered	Jan 09 - Dec 13	Putnam St
Total Accidents	9	Ponde
Accident Rate (Acc/MVM)	0.68	
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Location is generally rewestside.	esidential with two shopping centers near Buchanan Rd and a park on
Roadway Geometrics	Two lanes undivided re Lopez Dr.	oadway. One yellow pedestrian walk at intersection of Gentrytown Dr 8
Comments		gineering & traffic survey information support maintaining the existing 25 o the residential density and associated pedestrian and bike activities.
Speed Limit Change?	No	
Existing Speed Limit: 25 mph	Recommended Sp	eed Limit: 25 mph

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Gentrytown Drive

Limits: Gentrytown Drive from Putnam Street to James Donlon Blvd

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	3315 Gentrytown Drive (11/12/2014)	
Posted Speed Limit	25	Jefferson **
# Speed Data Collected	Redwood Dr	Jum - \
85th Percentile	34	200
10 mph Pace	25 - 34	Putnam St.
Percent in Pace	85%	Ponder de Way
B. Traffic Factors	Survey L	ocation S Fran
Average Daily Traffic (ADT)	5,735	Dillard Hody 105 Hody 105 To
Length of Segment (mi.)	0.59	Meredith West Collect Med
Street Classification	Collector Solonia	on Blvd James Donlo
C. Collision History	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nobles Dr
Date Range Covered	Jan 09 - Dec 13	Candlestick Dr Cordoba Way 4/var
Total Accidents	6	Cordoba Way Cordoba Way Alvar Lafayette Dr Mira Vista Hills Park
Accident Rate (Acc/MVM)	0.97	Mira Vista Hills Park
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Location is generally residential on south side northeast side.	e with open space on northwest side and a park on
Roadway Geometrics	Two lanes undivided with shared on-street p	arking in both directions.
Comments		ey information support maintaining the existing 25 y and associated pedestrian and bike activities.

Speed Limit Change?	No
Existing Speed Limit: 25 mph	Recommended Speed Limit: 25 mph
This survey conforms to Section 627 and 40002 of the California	/ahiela Code and Section 3B 13 of the California MLITCD and recommends a

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Hillcrest Avenue

Limits: Hillcrest Avenue from 18th Street to Sunset Drive

Direction: NB/SB



E 18th St

⊕ La Petite Academy

Factors	
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A. Prevailing Speed Data		
Date /Location of Survey	2024 Hillcrest Avenue (11/10/2014)
Posted Speed Limit	35	
# Speed Data Collected	202	S
85th Percentile	43	
10 mph Pace	35 - 44	
Percent in Pace	84%	0

B. Traffic Factors

Average Daily Traffic (ADT)	15,397
Length of Segment (mi.)	0.46
Street Classification	Arterial

C. Collision History

09 - Dec 13
)I
33
)

D. Roadway Conditions

Adjacent Land Use	Location is generally residential with a service center on the east side and vacant space close to
	Sunset Dr. RR tracks are found close to Sunset Dr and BART station located at southeast of
	sunset drive

Roadway Geometrics Four lanes with median and Class II bike lanes in both direction.

Comments The 85th percentile speed justifies to increase the speed from 35 mph to 40 mph. This includes a

downgrade of the 85th percentile speed by 5mph due to the 10 mph pace.

Speed Limit Change?

Existing Speed Limit: 35 mph Recommended Speed Limit: mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Street: Hillcrest Avenue

Limits: Hillcrest Avenue from Sunset Drive to Davison Drive

Direction: NB/SB



		ditors.	
Factors			
A. Prevailing Speed Data			
Date /Location of Survey	2751 Hillcrest Avenue (I	1/19/2014)	
Posted Speed Limit	45	Gary Ave	
# Speed Data Collected	209	Bidwell Continuation High School	
85th Percentile	44	unser Dy Sym	
10 mph Pace	36 - 45	Sunset Dr	
Percent in Pace	93%	Shado/c/ Dr	
B. Traffic Factors		Lynn Ave	
Average Daily Traffic (ADT)	36,292	Partie D. Company of the Company of	
Length of Segment (mi.)	0.55	THE DESCRIPTION OF THE PROPERTY OF THE PROPERT	
Street Classification	Arterial	world (a) Deer Valley Square	
C. Collision History		Davison Dr. Co. Shopping Center	
Date Range Covered	Jan 09 - Dec 13	Davison DI (All the state of th	
Total Accidents	20	Burwood Way	
Accident Rate (Acc/MVM)	0.54		
Statewide Average Accident Rate	1.83		
D. Roadway Conditions			
Adjacent Land Use	Location is generally com near California Delta Hw	mercial and residential area. A plaza on the east side and vacant space y.	
Roadway Geometrics	Six lanes with median and Hwy.	Six lanes with median and Class II bike lanes in both directions. A vertical curve above Delta Hwy.	
Comments	Results of attached engine mph speed limit.	eering & traffic survey information support maintaining the existing 45	
Speed Limit Change?	No		

Speed Limit Change?	No
Existing Speed Limit: 45 mph	Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Hillcrest Avenue

Limits: Hillcrest Avenue from Davison Drive to Lone Tree Way

Direction: EB/WB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	3527 Hillcrest Avenue (11/12/2014)	
Posted Speed Limit	45	
# Speed Data Collected	235	S C TENTON
OF J. D	Davison Di	to a second

Speed Data Collected 235
85th Percentile 49
10 mph Pace 42 - 51
Percent in Pace 90%

 B. Traffic Factors

 Average Daily Traffic (ADT)
 20,713

 Length of Segment (mi.)
 1.85

 Street Classification
 Arterial

C. Collision History

Date Range Covered Jan 09 - Dec 13

Total Accidents 93

Accident Rate (Acc/MVM) 1.33

Statewide Average Accident Rate 1.83

Postone Dr. Way

Asiomar Dr. Hamilton Q. Asiomar Dr. Hilltop Christian

Survey Location

And Proper Page Way

Taylor Way

Tayl

D. Roadway Conditions

Adjacent Land Use

Location is mixed with residential, commercial and business. A shopping center adjacent to the intersection: Deer Valley Rd & Hillcrest Ave. Business park adjacent to Wildflower Dr. A plaza

close to Lone Tree Way. There are about 1.7 miles of vacant space along the Hillcrest Ave.

Roadway Geometrics Four lanes divided with median, with Class II bike lanes in both directions. Horizontal curve south

of Wild Horse Road.

Comments Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident

rate.

 Speed Limit Change?
 No

 Existing Speed Limit: 45 mph
 Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

40

37 - 46

Street: James Donlon Blvd

Limits: James Donlon Blvd from Somersville Road to Contra Loma Blvd

Direction: EB/WB



Factors

A. Prevailing Speed Data Date /Location of Survey Posted Speed Limit

Speed Data Collected 207

Speed Data Collected 20/ 85th Percentile 44

Percent in Pace 93%

B. Traffic Factors

10 mph Pace

Average Daily Traffic (ADT) 17,074

Length of Segment (mi.) 1.56

Street Classification Arterial

C. Collision History

Date Range Covered Jan 09 - Dec 13

 Total Accidents
 52

 Accident Rate (Acc/MVM)
 1.07

 Statewide Average Accident Rate
 1.83

D. Roadway Conditions

Adjacent Land Use Location is generally residential and open space, with half vacant space on the north side.

Roadway Geometrics Four lanes divided with median, with Class II bike lanes in both directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 40

mph speed limit by downgrading the 85th percentile speed by 5mph due to residential density

James Donlon Boulevard mid block between Silverado Drive and Gentrytown Drive (11/12/2014)

Survey Location

Speed Limit Change? No

Existing Speed Limit: 40 mph Recommended Speed Limit: 40 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: James Donlon Blvd

Limits: James Donlon Blvd from Contra Loma Blvd to Lone Tree Way

Direction: EB/WB



A. Prevailing Speed Data		
Date /Location of Survey	James Donlon Blvd	mid block between G St and S. Royal Links Circle (11/12/2014)
Posted Speed Limit	40	Spertan Way g
# Speed Data Collected	213	De Control of the Middle School of the Scho
85th Percentile	45	T September 1
10 mph Pace	38 - 47	Jew D-
Percent in Pace	92%	

B. Traffic Factors

Average Daily Traffic (ADT) 23,162

Length of Segment (mi.) 1.56

Street Classification Arterial

C. Collision History

Date Range CoveredJan 09 - Dec 13Total Accidents54Accident Rate (Acc/MVM)0.82Statewide Average Accident Rate1.83

D. Roadway Conditions

Adjacent Land Use Location is generally residential, with a community park and open space on the south side.

Roadway Geometrics Four lanes divided with median, with Class II bike lanes in both directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 40 mph speed limit by downgrading the 85th percentile speed by 5mph due to 10 mph pace.

Speed Limit Change? No

Existing Speed Limit: 40 mph Recommended Speed Limit: 40 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE

Street: L Street

Limits: L Street from 2nd Street to 10th Street

Direction: NB/SB



Factors			
A. Prevailing Speed Data			_
Date /Location of Survey	755 L Street (11/6/2014)	Antioch Amt	
Posted Speed Limit	25	Allitoria	,rak 🛅
# Speed Data Collected	116	Beer Garden	
85th Percentile	38		W 3rd St
10 mph Pace	29 - 38	Antioch Police Dept	
Percent in Pace	85%	W 4th St	W 4th St
		W 5th St W 5tl	
B. Traffic Factors		N St	Antioch Unified School District
Average Daily Traffic (ADT)	3,404	W 6th St $\frac{2}{9}$	W 6th St G
Length of Segment (mi.)	0.39	7th St W 7th St	
Street Classification	Arterial	ghth St	S
		W 9th St	W 9th St
C. Collision History		St.	
Date Range Covered	Jan 09 - Dec 13	W-18th St	W 10th St
Total Accidents	17	Loma Ln	HSt
Accident Rate (Acc/MVM)	6.99		
Statewide Average Accident Rate	1.83		
D. Roadway Conditions			
Adjacent Land Use	Location is generally reside	ential area, with the city police departme	and 4th Ste
Adjacent Land Ose	LOCATION IS SENERALLY I CONCE	India area, with the city police departing	ant between zijd and tui 50.
Roadway Geometrics	Divided roadway. North b	ound: between 2nd and 4th St, one lane	e with shared parking, and ther
		o lanes with on-street parking lane. Sout ween 4th and 10th two lanes with Class	
Comments	•	ering & traffic survey information supporting by downgrading the 85th percentile spe	
	11.1		

Speed Limit Change?	Yes
Existing Speed Limit: 25 mph	Recommended Speed Limit: 30 mph

high accident rate.

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Knizel

Street: L Street

Limits: L Street from 10th Street to 18th Street

Direction: NB/SB



Factors A. Prevailing Speed Data Date /Location of Survey 1121 L Street (11/7/2014) Posted Speed Limit 35 # Speed Data Collected 208 W 10th St (1) Celia's Mexican 85th Percentile 38 10 mph Pace 30 - 39 Percent in Pace 91% B. Traffic Factors Average Daily Traffic (ADT) 6,963 Survey Location Length of Segment (mi.) 0.39 Street Classification Arterial C. Collision History Date Range Covered Jan 09 - Dec 13 **Total Accidents** 16 Accident Rate (Acc/MVM) 3.21 Statewide Average Accident Rate 1.78 D. Roadway Conditions Location is generally commercial (flea market and county fairgrounds), residential with a high Adjacent Land Use school. Roadway Geometrics Two lanes undivided with on-street parking lanes in both directions. Yellow pedestrian cross walk at intersection: L St & 14th St, L St & 18th St Comments Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident rate and proximity of school. No Speed Limit Change? Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a

Approved and Authorized for release by The City of Antioch Public Works:

speed limit appropriate to facilitate the safe and orderly movement of traffic.

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: L Street

Limits: L Street from 18th Street to SR4

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	2212 L Street (11/20/2014)	● ~W17th
Posted Speed Limit	35	Antioch High School
# Speed Data Collected	208	W.18th.St
85th Percentile	37	amore D
10 mph Pace	31 - 40	
Percent in Pace	94%	a e way
		for any state of the state of t
B. Traffic Factors		Survey Location Newbury Ave
Average Daily Traffic (ADT)	11,964	Inspiring You
Length of Segment (mi.)	0.44	• Inspiring You WMadill
Street Classification	Arterial	
C. Collision History		Marsh Elementary School
Date Range Covered	Jan 09 - Dec 13	Kelly-Moore Paints (a)
Total Accidents	25	Fitzuren Rd Skipolini's Pizza 🕦 Ö
Accident Rate (Acc/MVM)	2.58	Pizza Hut (1)
Statewide Average Accident Rate	1.83	
D. Roadway Conditions		
Adjacent Land Use	Location is generally residentia	al area with a park, a school and a small plaza at the north side.
Roadway Geometrics		tracks cross L St between 18th St and William Reed Dr. Yellow observed at the intersections: Lemontree Way & L St, William Reed
Comments	Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limitby downgrading the 85th percentile speed by 5mph due to the high accident rate,	

Speed Limit Change?	No
Existing Speed Limit: 35 mph	Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Title: Vice President, TJKM Transportation Consultants

proximity of school and pedestrian and bike activities.

Street: Laurel Road

Limits: Laurel Road from Hillcrest Avenue to End

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	Laurel Road 500 feet so	outh of Kushner Way (11/20/2014)
Posted Speed Limit	45	liak S
# Speed Data Collected	209	Bear Ridge Aidden Glen Dr
85th Percentile	48	to the state of th
10 mph Pace	41 - 50	Golden Bear Of Brasemar St
Percent in Pace	94%	THE Way 1888 Way was wall Way
B. Traffic Factors		Shellend Dr. Law Wall and A. Shellend A. S
Average Daily Traffic (ADT)	4,596	Deermeadow Way
Length of Segment (mi.)	0.55	Ciliconnet & Ciliconnet
Street Classification	Arterial	of the state of th
		Sterling Hill Dr C Goldcrest Way
C. Collision History		Green Hills Cir
Date Range Covered	Jan 09 - Dec 13	Carmen Dragon Clarent Dragon Clarent Dragon Flementary Sch
Total Accidents	8	The Country Hills Dr. Hill
Accident Rate (Acc/MVM)	1.74	and the second s
Statewide Average Accident Rate	1.83	
D. Roadway Conditions		
Adjacent Land Use	Location is generally re	esidential area with an open space at the northeast corner of the
, rejuccine Land God	intersection of Hillcrest	
Roadway Geometrics	Four lanes divided with	n median, with Class II bike lanes in both directions.
risasina, essimeares	rour lands divided with	The same of the sa
	8	
Comments	Kesults of attached eng	gineering & traffic survey information support maintaining the existing 45

Speed Limit Change?	No	
Existing Speed Limit: 45 mph	Recommended Speed Limit: 45 mph	
This survey conforms to Continu (27 and 4000) of the Colifornia Vahiele Code and Continu 20 12 of the Colifornia MILTON and recommended		

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE

Title: Vice President, TJKM Transportation Consultants

mph speed limit by downgrading the 85th percentile speed by 5mph due to residential density.

Street: Laurel Road

Limits: Laurel Road from SR4 to City Limits

Direction: NB/SB



Гас	LUIS		
Α.	Prevailing	Speed	Data

Date /Location of Survey	Laurel Road 600 feet v	vest of Oak Avenue (11/20/2014)
Posted Speed Limit	45	
# Speed Data Collected	228	77 ((A))
85th Percentile	49	Renton St.
10 mph Pace	42 - 51	e
Percent in Pace	92%	



Average Daily Traffic (ADT)	28,864
Length of Segment (mi.)	0.33
Street Classification	Arterial

C. Collision History

	
Date Range Covered	Jan 09 - Dec 13
Total Accidents	4
Accident Rate (Acc/MVM)	0.23
Statewide Average Accident Rate	1.83

D. Roadway Conditions

Adjacent Land Use Location is open space.

Roadway Geometrics Six Lanes with median, and Class II bike lanes in both directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 45 mph speed limit by downgrading the 85th percentile speed by 5mph due to the 10 mph pace.

Speed Limit Change? No

Existing Speed Limit: 45 mph Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Street: Lone Tree Way

Limits: Lone Tree Way from SR4 to Putnam Street

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	2866 Lone Tree Way	(11/13/2014)
Posted Speed Limit	30	Texas St Jack in the Box 19
# Speed Data Collected	222	Drake St
85th Percentile	40	California Delta Hwy
10 mph Pace	33 - 42	
Percent in Pace	95%	W Tregallas Rd US Post Office US Post Office
B. Traffic Factors		Bautista St Nineteenth Hole Nineteenth Hole
Average Daily Traffic (ADT)	28,921	y Sq. Nineteenth Hole ● y Co.
Length of Segment (mi.)	0.33	Survey Location
Street Classification	Arterial	Putnam St.
. Collision History		Way
Date Range Covered	Jan 09 - Dec 13	Plumteigh Ave
Total Accidents	49	Elizabeth In Ave
Accident Rate (Acc/MVM)	2.81	Hillside Rd
Statewide Average Accident Rate	1.83	
D. Roadway Conditions		
Adjacent Land Use	Location is mixed with chiropractic center) an	commercial (shopping center), service (gas station, real estate, ad residential.
Roadway Geometrics	Four lanes with median	n, and Class II bike lanes in both directions.
Comments		need justifies to increase the speed from 30 mph to 35 mph. This includ in percentile speed by 5mph due to the high accident rate.

Existing Speed Limit: 30 mph	Recommended Speed Limit: 35 mph
	Vehicle Code and Section 2B.13 of the California MUTCD and recommends a
speed limit appropriate to facilitate the safe and orderly movemen	t of traffic.

Yes

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Speed Limit Change?

Street: Lone Tree Way

Limits: Lone Tree Way from Putnam Street to James Donlon Blvd

Direction: NB/SB



Factors A. Prevailing Speed Data Date /Location of Survey 3120 Lone Tree Way (11/13/2014) Posted Speed Limit 35 # Speed Data Collected 202 85th Percentile 42* 10 mph Pace 35 - 44 Percent in Pace 86% B. Traffic Factors

Average Daily Traffic (ADT) 28,001 Length of Segment (mi.) 0.91 Street Classification Arterial

C. Collision History Date Range Covered Jan 09 - Dec 13 **Total Accidents** 84 Accident Rate (Acc/MVM) 1.82

Statewide Average Accident Rate 1.83

D. Roadway Conditions Adjacent Land Use Mixed residential and commercial land usage. A medical center and churches along the roadway segment Roadway Geometrics Between Putnam St and Walton Ln: four lanes with median and shared on-street parking in both

directions. Between Walton Ln and Sunset Ln: four lanes with median, and Class II bike lanes in both directions. Between Sunset Ln and James Donlon Blvd, southbound has three lanes, northbound has two lanes and a Class II bike lane. Yellow colored pedestrian crossing at intersection of Putnam St & Lone Tree Way.

85th Percentile speed corrected to 42 mph on 12-2-15 by Chris D. Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limit due to the high accident rate.

Speed Limit Change?	No
Existing Speed Limit: 35 mph	Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE Title: Vice President, TJKM Transportation Consultants

Street: Lone Tree Way

A. Prevailing Speed Data

Limits: Lone Tree Way from James Donlon Blvd to Deer Valley Road

Direction: EB/WB



Factors	
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- •		
Date /Location of Survey	4055 Lone Tree Way (11/13/2014)	
Posted Speed Limit	45	
# Speed Data Collected	219	and the same of
85th Percentile	45	The state of the s
10 mph Pace	36 - 45	Reser
Percent in Pace	81%	Antioch Monicipal

B. Traffic Factors

Average Daily Traffic (ADT)	26,896
Length of Segment (mi.)	1.80
Street Classification	Arterial

C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	85
Accident Rate (Acc/MVM)	0.96
Statewide Average Accident Rate	1.83

D. Roadway Conditions

Adjacent Land Use	Location is generally residential. A hospital at the northeast corner of Ridgerock Dr & Lone Tree
	Way. A Medical Career College at the northeast corner of Bluerock Dr and Lone Tree Way. A
	church between Country Hills Dr and Deer Valley Rd. A plaza at the southwest corner of
	interpretation Lang Tree May 8 Deep Valley Bd

Roadway Geometrics With Median. Between James Donlon Blvd and Bluerock Dr., three lanes in southbound, two

lanes in northbound with edgeline. 800 ft after Bluerock intersection, southbound three lanes merge into two lanes, northbound remains two lanes, emergency stop area in both directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit.

Speed Limit Change? **No**

Existing Speed Limit: 45 mph Recommended Speed Limit: 45 mp	γh
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This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Lone Tree Way

Limits: Lone Tree Way from Deer Valley Road to City Limits

Direction: EB/WB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	4672 Lone Tree W	Vay (11/25/2014)
Posted Speed Limit	45	App Con Con Sea May Moo
# Speed Data Collected	207	● Hilltop Christian
85th Percentile	49	May Older
10 mph Pace	43 - 52	Way Hillcrest Av
Percent in Pace	94%	10
		2 / Fee Way
B. Traffic Factors		8 "Gian Hit Ot
Average Daily Traffic (ADT)	25,965	
		· itlast T

2.56

Arterial

C. Collision History

Street Classification

Length of Segment (mi.)

Date Range Covered Jan 09 - Dec 13

Total Accidents 106
Accident Rate (Acc/MVM) 0.87
Statewide Average Accident Rate 1.83

D. Roadway Conditions

Adjacent Land Use Location is mainly commercial and residential area. A school on the south side between Deer

Valley Rd and Sagebrush Dr. A library, a water park, a skate park and a plaza between Deer Valley Rd and Hillcrest Ave. A park on the southwest corner of Lone Tree Way & Hillcrest Ave.

There is a shopping center adjacent to SR4.

Roadway Geometrics

Between Deer Valley Rd and Hillcrest Ave, four lanes with median and edgeline in both directions. After Hillcrest Ave, six lanes with median. Yellow colored pedestrian crossings are observed at intersections: Deer Valley Rd & Lone Tree Way, school entrance, Sagebrush Dr &

Lone Tree Way.

Comments

Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit by downgrading the 85th percentile speed by 5mph due to proximity of school,

library, residential density and associated pedestrian and bike activities.

Speed Limit Change? No

Existing Speed Limit: 45 mph Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kingel

Signed: Chris D. Kinzel, PE Title: Vice President, TJKM Transportation Consultants

Street: Minaker/13th/Hillcrest

Signed: Chris D. Kinzel, PE

Limits: Minaker/13th/Hillcrest from Wilbur Avenue to 18th Street

Direction: NB/SB



actors		
A. Prevailing Speed Data		
Date /Location of Survey	1017 Minaker Drive (11/4/2014)	
Posted Speed Limit	25	
'		Wilbur Ave
# Speed Data Collected	143	
85th Percentile	32	
10 mph Pace	Jacobse Jacobse	en St
Percent in Pace	89%	S opposed Lipton St Lipton
3. Traffic Factors	Elake 13th St.	Lipton St Lipton
Average Daily Traffic (ADT)	3,018	Sandy Way
Length of Segment (mi.)	0.68	8
Street Classification	Collector	
Street Classification	Collector E 18th St	E 18ti
C. Collision History	lan 09 - Dec 13	Trembon
Date Range Covered	Jan 09 - Dec 13	Yellowstone Dr
Total Accidents	Jan 09 - Dec 13 II Biglow Dr. Biglow Dr. Biglow Dr.	Yosemite Dr Calaverse Cir
Accident Rate (Acc/MVM)	2.92	Hill Dr Calaveras Cir
Statewide Average Accident Rate	1.78	
Ğ		
D. Roadway Conditions		
Adjacent Land Use	Location is generally residential area.	
Roadway Geometrics	Two lanes undivided with shared on-street parking in both direction	ons. A Class II bike lane in
	southbound between E Lake Dr and S Lake Dr.	
Comments	Results of attached engineering & traffic survey information support	rt maintaining the existing 25
	mph speed limit by downgrading the 85th percentile speed by 5mp	oh due to high accident rate,
	residential density and associated pedestrian and bike activities.	
Speed Limit Change?	No	
Existing Speed Limit: 25 mph	Recommended Speed Limit: 25 mph	
	the California Vehicle Code and Section 2B.13 of the California MUTCD and reco	ommends a
Approved and Authorized for release by The City of	Antioch Public Worker	PROFESSIONAL STATES
. , ,	Andoch Labite 1101 Ks.	(\$\frac{1}{2}\) No. 15347
Chris D. Kinizel		

Street: W Ninth St Limits: W Ninth St from 0 Street to G Street Direction: EB/WB Factors A. Prevailing Speed Data Date /Location of Survey 912 West 9th Street (11/6/2014) 25 Posted Speed Limit W 2nd St # Speed Data Collected 114 W 3rd St 85th Percentile 32 10 mph Pace 23 - 32 Percent in Pace 82% B. Traffic Factors Average Daily Traffic (ADT) 3.163 W 10th St 70th St Length of Segment (mi.) 0.53 Survey Location Street Classification Collector W 11th St C. Collision History Date Range Covered Jan 09 - Dec 13 Contra Costa County Fairgrounds 8 Total Accidents Antioch High School Accident Rate (Acc/MVM) 2.63 Statewide Average Accident Rate 1.78 D. Roadway Conditions Adjacent Land Use Location is generally residential with a few restaurants. Roadway Geometrics Two lanes undivided with shared on-street parking in both directions. Comments Results of attached engineering & traffic survey information support maintaining the existing 25 mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident rate. Speed Limit Change? No Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic. Approved and Authorized for release by The City of Antioch Public Works: Chris D. Kingel

Title: Vice President, TJKM Transportation Consultants

Signed: Chris D. Kinzel, PE

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W 2nd St W 3rd St

W 10th St

4th St

W 5th St

Survey Location

BSI

Street: W Ninth St

Limits: W Ninth St from G Street to A Street

Direction: EB/WB



E 6th St

Sha

Factors

A. Prevailing Speed Data	
Date /Location of Survey	312 West 9th Street (11/6/2014)
Posted Speed Limit	25
# Speed Data Collected	104
85th Percentile	28
10 mph Pace	20 - 29
Percent in Pace	88%

B. Traffic Factors

Average Daily Traffic (ADT) 2,263

Length of Segment (mi.) 0.42

Street Classification Collector

C. Collision History

 Date Range Covered
 Jan 09 - Dec 13

 Total Accidents
 4

 Accident Rate (Acc/MVM)
 2.31

 Statewide Average Accident Rate
 1.78

D. Roadway Conditions

Adjacent Land Use Location is generally residential.

Roadway Geometrics Two lanes undivided with shared on-street parking in both directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25 mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident

rate.

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Pittsburg-Antioch

A. Prevailing Speed Data

Limits: Pittsburg-Antioch from City Limits to Auto Center Drive

Direction: EB/WB



Factors

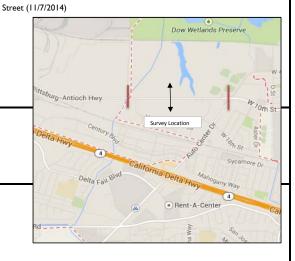
Date /Location of Survey	2484 West 10th S
Posted Speed Limit	50
# Speed Data Collected	228
85th Percentile	51
10 mph Pace	42 - 51
Percent in Pace	78%

B. Traffic Factors

Average Daily Traffic (ADT)	16,095
Length of Segment (mi.)	0.74
Street Classification	Arterial

C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	22
Accident Rate (Acc/MVM)	1.01
Statewide Average Accident Rate	1.78



D. Roadway Conditions

Adjacent Land Use	Location is almost vacant on the north side. A few apartment properties and car rental store/car
	maintenance/car dealership on the south side

Roadway Geometrics Three lanes undivided, the middle one is two-way left turn lane. Both directions have edgeline.

Comments Results of attached engineering & traffic survey information support maintaining the existing 50 mph speed limit.

Speed Limit Change?	No
Existing Speed Limit: 50 mph	Recommended Speed Limit: 50 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Knizel

Signed: Chris D. Kinzel, PE Title: Vice President, TJKM Transportation Consultants

Street: Putnam Street

Limits: Putnam Street from Gentrytown Drive to Contra Loma Blvd

Direction: EB/WB



Factors			
A. Prevailing Speed Data			
Date /Location of Survey	1219 Putnam Street (
Posted Speed Limit	25	St. Selementary School Man Van John Vista Sa	
# Speed Data Collected	115		
85th Percentile	35		
10 mph Pace	27 - 36	Palo Vingel Con Palo Vingel Con Palo Vingel Con Palo S Prago S	
Percent in Pace	81%	Jefferson Brade Of Putnam St.	
B. Traffic Factors		With the state of	
Average Daily Traffic (ADT)	2,981	Putnam St.	
Length of Segment (mi.)	1.09	Donald Graway Survey Location	
Street Classification	Collector	S Francisco Way	
C. Collision History		and the state of t	
Date Range Covered	Jan 09 - Dec 13	Meredith Wall golder Hamilin Dr	
Total Accidents	15	n Blvd James Donlon Blvd	
Accident Rate (Acc/MVM)	2.53	Robbach	
Statewide Average Accident Rate	1.78		
D. Roadway Conditions			
Adjacent Land Use	• ,	residential, with a church between Rio Grande Dr and Monterey Dr, and a petween Longview Rd and Contra Loma Blvd.	
Roadway Geometrics	Two lanes undivided	with shared on-street parking in both directions.	
Comments		engineering & traffic survey information support maintaining the existing 25 to the residential density and associated pedestrian and bike activities.	
Speed Limit Change?	No		
Existing Speed Limit: 25 mph		Recommended Speed Limit: 25 mph	

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Putnam Street

Limits: Putnam Street from Contra Loma Blvd to Lone Tree Way

Direction: EB/WB



US Post Office

Factors

Α.	Prevaili	ng S	peed	Data

 Date /Location of Survey
 609 Putnam Street (11/14/2014)

 Posted Speed Limit
 25

 # Speed Data Collected
 146

 85th Percentile
 35

 10 mph Pace
 26 - 35

 10 mph Pace
 26 - 35

 Percent in Pace
 81%

B. Traffic Factors

Average Daily Traffic (ADT) 6,439

Length of Segment (mi.) 0.82

Street Classification Collector

C. Collision History

Date Range Covered Jan 09 - Dec 13

Total Accidents 32
Accident Rate (Acc/MVM) 3.31
Statewide Average Accident Rate 1.78

D. Roadway Conditions

Adjacent Land Use

Location is residential area, with a school at the southwest corner of Putnam St & D St.

Survey Location

Roadway Geometrics Two lanes undivided with shared on-street parking in both directions. Crosswalks at

intersections between G St & Putnam St, and Lone Tree Way & Putnam St are all colored

yellow.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25

mph speed limit due to the residential density and associated pedestrian and bike activities.

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: W Second St

Limits: W Second St from L Street to G Street

Direction: EB/WB



W 3rd St

Riverview Lodge 👭

W 7th St

Factors

A. Prevailing Speed Data	
Date /Location of Survey	682 W. 2nd Street (11/5/2014)
Posted Speed Limit	25
# Speed Data Collected	123
85th Percentile	23
10 mph Pace	16 - 25
Percent in Pace	93%



Average Daily Traffic (ADT) 3,935

Length of Segment (mi.) 0.32

Street Classification Collector

C. Collision History

 Date Range Covered
 Jan 09 - Dec 13

 Total Accidents
 7

 Accident Rate (Acc/MVM)
 3.05

D. Roadway Conditions

Statewide Average Accident Rate

Adjacent Land Use

Location is generally commercial and residential area with a Plaza and City Hall between G St and
I St. An Adult School between I St and J St, then vacant on the north side between J St and L St.

1.78

Roadway Geometrics Two lanes undivided with shared on-street parking in both directions. Pink painted pedestrian

crosswalk at intersections: I St & 2nd St, G St & 2nd St, and one (cross 2nd St) in the middle of

these two. Yellow pedestrian crosswalk at intersection 2nd & J St.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25

mph speed limit.

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: W Sixth St

Limits: W Sixth St from L Street to A Street

Direction: EB/WB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	814 W. 6th Street (11/5/2014)	
Posted Speed Limit	25 W 2nd St	-
# Speed Data Collected	116 92 W 3rd St	
85th Percentile		1 St
10 mph Pace	21 - 30 W 5th St	
Percent in Pace	91% W 6th St 2 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	E 6th
	W Fill St Survey Location W Eighth St	S E /tin Si
B. Traffic Factors	w 9th St	
Average Daily Traffic (ADT)	2,440 W 10th St	
Length of Segment (mi.)	0.74 Loma Ln W 11th St m 52	
Street Classification	Local Park	k Ln
C. Collision History	sta St St St	ith St. ⊳
Date Range Covered	Jan 09 - Dec 13	S E 15th
Total Accidents	Antioch High School	
Accident Rate (Acc/MVM)	3.96	
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Location is mainly residential area with a school district on the north side between	G St and H St.
Roadway Geometrics	Two lanes undivided with shared on-street parking in both directions. Yellow colored intersection at F st & 6th St. Pink colored crosswalk at north side of intersection A	
Comments	Results of attached engineering & traffic survey information support maintaining the existing 25 mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident	

Speed Limit Change?	No
Existing Speed Limit: 25 mph	Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Street: Somersville Road

Limits: Somersville Road from SR4 to Buchanan Road

Direction: NB/SB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	2548 Somersville Road	(11/25/2014)
Posted Speed Limit	35	
# Speed Data Collected	215	Olive Garden (4)
85th Percentile	32	4 26A Day
10 mph Pace	24 - 33	
Percent in Pace	89%	a Fair Blud Mahogan
B. Traffic Factors		a Fall 7
Average Daily Traffic (ADT)	15,872	Somerwille -Center Auburn UT
Length of Segment (mi.)	0.54	Somersville Survey Location -Center August - Rd
Street Classification	Arterial	Towne Center Survey Location Survey Location Buchanan Rd
C. Collision History		Mission Copez Dr Licens Way Way Way
Date Range Covered	Jan 09 - Dec 13	Hera May
Total Accidents	54	
Accident Rate (Acc/MVM)	3.47	22 September 1 Sep
Statewide Average Accident Rate	1.83	
D. Roadway Conditions		
Adjacent Land Use	Location is generally co close to SR4.	ommercial area (three shopping centers) with a hospital on the north side
Roadway Geometrics	Four lanes with median.	
Comments	Results of attached engi mph speed limit.	ineering & traffic survey information support maintaining the existing 35

Speed Limit Change?	No
Existing Speed Limit: 35 mph	Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Kinizel
Signed: Chris D. Kinzel, PE

Street: Somersville Road

Limits: Somersville Road from Buchanan Road to James Donlon Blvd

Direction: NB/SB



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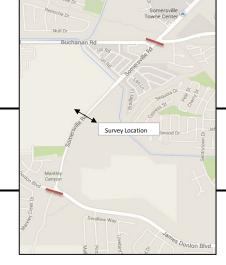
١.	Prevailing Speed Data	
	Date /Location of Survey	3558 Somersville Road (11/25/2014)
	Posted Speed Limit	35
	# Speed Data Collected	204
	85th Percentile	50
	10 mph Pace	42 - 51
	Percent in Pace	88%

B. Traffic Factors

Average Daily Traffic (ADT)	16,156
Length of Segment (mi.)	0.90
Street Classification	Arterial

C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	33
Accident Rate (Acc/MVM)	1.25
Statewide Average Accident Rate	1.83



D. Roadway Conditions

Adjacent Land Use Location is generally open space with a small portion of residential houses close to Buchanan Rd.

Roadway Geometrics Somersville Road started with four lanes with median at Buchanan Road, and slowly merge into

two lanes undivided after entering open space (around 0.3 mile from Buchanan Rd).

Comments The 10 Mile pace range and the 85th percentile speed justifies to increase the speed from 35 mph

to 45 mph.

Speed Limit Change?

Existing Speed Limit: 35 mph Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: W 10th Street

Limits: W 10th Street from Auto Center Drive to L Street

Direction: EB/WB



W 10th St

-	a	c	Т	n	r	8

A. Prevailing Speed Data Date /Location of Survey 1212 West 10th Street (11/6/2014) Posted Speed Limit 35 # Speed Data Collected 212 85th Percentile 41 10 mph Pace 33 - 42 Percent in Pace 89%



Average Daily Traffic (ADT) 17,298
Length of Segment (mi.) 0.54
Street Classification Arterial



 Date Range Covered
 Jan 09 - Dec 13

 Total Accidents
 30

 Accident Rate (Acc/MVM)
 1.76

D. Roadway Conditions

Statewide Average Accident Rate

Adjacent Land Use Location is commercial and residential, with a motel and hospital at northwest corner of O St

and 10th St.

Roadway Geometrics Four lanes with median and shared on-street parking in both directions.

1.83

Comments Results of attached engineering & traffic survey information support maintaining the existing 35 mph speed limit due by downgrading the 85th percentile speed by 5mph due to residential

density and associated pedestrians and bike facilities.

Speed Limit Change? No

Existing Speed Limit: 35 mph Recommended Speed Limit: 35 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: W 10th Street

Limits: W 10th Street from L Street to A Street

Direction: EB/WB



Antioch Amtrak

tra Costa Fairgrour S

Survey Location

Antioch High School

Factors

A. Prevailing Speed Data	
Date /Location of Survey	408 West 10th Street (11/6/2014)
Posted Speed Limit	25
# Speed Data Collected	216
85th Percentile	30
10 mph Pace	23 - 32
Percent in Pace	96%

B. Traffic Factors

Average Daily Traffic (ADT) 13,250

Length of Segment (mi.) 0.74

Street Classification Collector

C. Collision History

Date Range CoveredJan 09 - Dec 13Total Accidents56Accident Rate (Acc/MVM)3.12Statewide Average Accident Rate1.78

D. Roadway Conditions

Adjacent Land Use Location is commercial between L St and G St, and residential between G St and A St. A Park at

the southwest corner of intersection A St & 10th St.

Roadway Geometrics Two lanes undivided with shared on-street parking in both directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25 mph speed limit by downgrading the 85th percentile speed by 5mph due to the high accident

rate.

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: E Tregallas Road

Limits: E Tregallas Road from Lone Tree Way to Garrow Drive

Direction: EB/WB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	308 E. Tregallas Road (11	1/13/2014)
Posted Speed Limit	25	SS EMadill St
# Speed Data Collected	217	Sk in the Box (N) Bryan Ave
85th Percentile	36	Ave Compute
10 mph Pace	28 - 37	Sunset Dr 19
Percent in Pace	84%	E Tregallas Rd E
B. Traffic Factors		Survey Location
Average Daily Traffic (ADT)	5,162	Belshaw Elementary School
Length of Segment (mi.)	0.56	Garre Su
Street Classification	Local	Record Red Server Red
C. Collision History		
Date Range Covered	Jan 09 - Dec 13	Hillside Rd
Total Accidents	18	
Accident Rate (Acc/MVM)	3.42	
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Location is open space of	n north side, and residential on south side with a child day schools.
Roadway Geometrics		h shared parking in eastbound direction. Yellow colored intersections: Rd, Garrow Dr & Tregallas Rd.
Comments	Results of attached engin	neering & traffic survey information support maintaining the existing 25

Speed Limit Change?	No
Existing Speed Limit: 25 mph	Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Title: Vice President, TJKM Transportation Consultants

mph speed limit due to high accident rate and the residential density.

Street: E Tregallas Road

Limits: E Tregallas Road from Garrow Drive to Hillcrest Avenue

Direction: EB/WB



Factors		
A. Prevailing Speed Data		
Date /Location of Survey	E. Tregallas Road mid b ¹	olock between Harbour Drive and Windsor Drive (11/13/2014)
Posted Speed Limit	35	Behell Consociation High School
# Speed Data Collected	206	Computer Copt •
85th Percentile	43	Surface Co. Cast Ray Venioning Energiesi
10 mph Pace	33 - 42	E. Tropaldig II II Antioch Videor Co. Sports Certain Co. Sports Certai
Percent in Pace	79%	Survey Location
B. Traffic Factors		(9) (8 hours Assaulte mick-
Average Daily Traffic (ADT)	5,338	Light Ker spoketers (1)
Length of Segment (mi.)	0.76	
Street Classification	Local	Table San - Table
C. Collision History		and I go a section to a
Date Range Covered	Jan 09 - Dec 13	
Total Accidents	13	
Accident Rate (Acc/MVM)	1.77	
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Location is next to SR4 and a child care center.	on north side (divided), and residential on south side with two churches
Roadway Geometrics	Two lanes undivided wi	ith shared parking in eastbound direction.

Speed Limit Change?	No
Existing Speed Limit: 35 mph	Recommended Speed Limit: 35 mph

mph speed limit due to the residential density.

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Knizel

Comments

Title: Vice President, TJKM Transportation Consultants

Results of attached engineering & traffic survey information support maintaining the existing 35

Street: W Tregallas Road

Limits: W Tregallas Road from G Street to Lone Tree Way

Direction: EB/WB



		THORSE.
Factors		
A. Prevailing Speed Data		
Date /Location of Survey	275 W. Tregallas Road (11/14/2014)	
Posted Speed Limit	25	A St indhe
# Speed Data Collected	213	Mitchs St St Jack in the Box 1
85th Percentile	Marsh Elementary School	FSt
10 mph Pace	24 - 33	Drake St
Percent in Pace	90%	W.Tregallas Rd
B. Traffic Factors	Survey Location	Autista
Average Daily Traffic (ADT)	7,934	Nineteenth Hole Nineteenth Hole
Length of Segment (mi.)	0.56	n Ave as S
Street Classification	Local Putnam St	Putnan Sy
C. Collision History	Spartan Way	y re
Date Range Covered	Jan 09 - Dec 13	abeth
Total Accidents	31	dle School
Accident Rate (Acc/MVM)	3.82	Honeron
Statewide Average Accident Rate	1.78	
D. Roadway Conditions		
Adjacent Land Use	Location is generally residential, with a children day car academy between Dolorest St and Capistrano St.	
Roadway Geometrics	Two lanes undivided with shared parking in both directions. 90 degree turn on roadway west of Lone Tree Way	
Comments	Results of attached engineering & traffic survey informal mph speed limit by downgrading the 85th percentile sperate.	
Speed Limit Change?	No	

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Viera Avenue

Limits: Viera Avenue from Wilbur Avenue to 18th Street

Direction: NB/SB



Survey Location

▲ Holly Cross Cemetery

Factors

A. Prevailing Speed Data Date /Location of Survey 1509 Viera Avenue (11/4/2014) Posted Speed Limit 25 # Speed Data Collected 105 85th Percentile 38 10 mph Pace 29 - 38 Percent in Pace 67%

B. Traffic Factors

Average Daily Traffic (ADT) I,287

Length of Segment (mi.) 0.50

Street Classification Collector

C. Collision History

Date Range CoveredJan 09 - Dec 13Total Accidents2Accident Rate (Acc/MVM)1.69

Statewide Average Accident Rate 1.78

D. Roadway Conditions

Adjacent Land Use Location is generally residential with farmland.

Roadway Geometrics Two lanes undivided with Class II bike lanes in both directions, A RR track crossing between

Wilbur Ave & Santa Fe Ave.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25

 $\label{eq:mph} \mbox{ mph speed limit due to residential density and associated pedestrian and bike facilities.}$

lbur Ave

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Knizel

Street: Wilbur Avenue

Limits: Wilbur Avenue from A Street to Cavallo Road

Direction: EB/WB



Factors A. Prevailing Speed Data Date /Location of Survey 395 Wilbur Avenue (11/5/2014) Posted Speed Limit 40 # Speed Data Collected 217 85th Percentile 44 10 mph Pace 36 - 45 Percent in Pace 91% B. Traffic Factors Average Daily Traffic (ADT) 10,766 Length of Segment (mi.) 0.49 Street Classification Arterial C. Collision History Date Range Covered Jan 09 - Dec 13 8 **Total Accidents** E 16th St Accident Rate (Acc/MVM) 0.83 Statewide Average Accident Rate 2.47 D. Roadway Conditions Adjacent Land Use Location is generally residential, with open space on the east side. Roadway Geometrics Four lanes undivided with painted edge line on westbound side. Four lanes merged into two after Marie Ave. Between Marie Ave and Cavallo Rd, two lanes with median, a Class II bike lane in the westbound direction and an emergency stop lane in the eastbound. Comments Results of attached engineering & traffic survey information support maintaining the existing 40

Speed Limit Change?	No No
Existing Speed Limit: 40 mph	Recommended Speed Limit: 40 mph

and associated pedestrian and bike facilities.

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Title: Vice President, TJKM Transportation Consultants

mph speed limit by downgrading the 85th percentile speed by 5mph due to residential density

Street: Wilbur Avenue

Limits: Wilbur Avenue from Cavallo Road to 1600' e/o Minaker Drive

Direction: EB/WB



Fac	ctors	
Δ.	Prevailing Speed Data	a

Date /Location of Survey

Wilbur Avenue mid block between Cavallo Road and Minaker Drive (11/4/2014)

Posted Speed Limit

40

36 - 45

Speed Data Collected 207
85th Percentile 44

Percent in Pace 93%

B. Traffic Factors

10 mph Pace

Average Daily Traffic (ADT) 10,248

Length of Segment (mi.) 0.59

Street Classification Arterial

C. Collision History

Date Range Covered Jan 09 - Dec 13

Total Accidents 7
Accident Rate (Acc/MVM) 0.64
Statewide Average Accident Rate 1.83



D. Roadway Conditions

Adjacent Land Use Location is generally open space with a few houses and three offices (two tow offices and an

engineering corporation).

Roadway Geometrics Between Cavallo Rd and Minaker Dr, Four lanes with median and Class II bike lanes, 1700 ft after

Minaker Dr, merge into two lanes undivided. 2560 ft after Minaker Dr cross a RR track.

Comments Results of attached engineering & traffic survey information support maintaining the existing 40

mph speed limit by downgrading the 85th percentile speed by 5 mph due to the 10 mph pace.

Speed Limit Change? No

Existing Speed Limit: 40 mph Recommended Speed Limit: 40 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Street: Wilbur Avenue

Limits: Wilbur Avenue from 1600' e/o Minaker Drive to City Limits

Direction: EB/WB

Factors



Wilbur Ave

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: 11 Craiming Opeca Data	
Date /Location of Survey	1253 Wilbur Avenue (11/4/2014)
Posted Speed Limit	45
# Speed Data Collected	207
85th Percentile	49
10 mph Pace	41 - 50
Percent in Pace	86%

B. Traffic Factors

Average Daily Traffic (ADT)	6,780
Length of Segment (mi.)	0.74
Street Classification	Arterial

C. Collision History

Jan 09 - Dec 13
5
0.55
1.78

D. Roadway Conditions

Adjacent Land Use Location is open space with the city plant on the south side.

Roadway Geometrics Between 3100' e/o Cavallo to RR track, two lanes undivided. Between RR track to City Limits,

three lanes undivided (a two-way left turn lane in between).

Comments Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit by downgrading the 85th percentile speed by 5mph due to the 10 mph pace.

Speed Limit Change? No

Existing Speed Limit: 45 mph Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Chris D. Kingel

Street: Wild Horse Road

Limits: Wild Horse Road from Hillcrest Avenue to Slatten Ranch Road

Direction: EB/WB



Factors	F	a	c	t	0	r	S	
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A. Prevailing Speed Data		
Date /Location of Survey	Wild Horse Road 400	feet west of Meadow Lake Street (11/25/2014)
Posted Speed Limit	45	Gode St
# Speed Data Collected	108	Park Sid
85th Percentile	47	low balk St. Ben
10 mph Pace	40 - 49	Wild Horse Rd
Percent in Pace	98%	Vietnamese 2
		Survey Location 8



Average Daily Traffic (ADT)	4,229
Length of Segment (mi.)	0.88
Street Classification	Collector



C. Collision History

Date Range Covered	Jan 09 - Dec 13
Total Accidents	17
Accident Rate (Acc/MVM)	2.50
Statewide Average Accident Rate	1.83

D.	Roadway	y Conditions

Adiacent Land Use	Location is generally residential and around 40 percent of area is random open space.

Roadway Geometrics

Between Hillcrest Ave and Meadow Lake St, 4 lanes with median. After then merge to three lanes (with a two-way left turn lane in the middle), undivided, with Class II bike lanes in both

directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 45

mph speed limit and downgrading 85th percentile speed by 5mph due to the high accident rate.

Speed Limit Change? No

Existing Speed Limit: 45 mph	Recommended Speed Limit: 45 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Signed: Chris D. Kinzel, PE

Street: Worrell Road

Limits: Worrell Road from Lone Tree Way to Garrow Drive

Direction: EB/WB



Fact	tors
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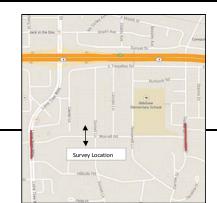
A. Prevailing Speed Data	
Date /Location of Survey	32 Worrell Road (11/21/2014)
Posted Speed Limit	25
# Speed Data Collected	120
85th Percentile	29
10 mph Pace	21 - 30
Percent in Pace	91%

B. Traffic Factors

Average Daily Traffic (ADT) 2,270

Length of Segment (mi.) 0.53

Street Classification Collector



C. Collision History

Date Range Covered Jan 09 - Dec 13

 Total Accidents
 5

 Accident Rate (Acc/MVM)
 2.26

 Statewide Average Accident Rate
 1.78

D. Roadway Conditions

Adjacent Land Use Location is generally residential and around 40 percent of area is random open space. Elementary

school at Worrell Rd and Roosevelt Ln intersection.

Roadway Geometrics Between Hillcrest Ave and Meadow Lake St, 4 lanes with median, then lane drop to three lanes

(with a two-way left turn lane in the middle), undivided, with Class II bike lanes in both

directions.

Comments Results of attached engineering & traffic survey information support maintaining the existing 25

mph speed limit by downgrading the 85th percentile speed by 5mph due to high accident rate and

proximity to school.

Speed Limit Change? No

Existing Speed Limit: 25 mph Recommended Speed Limit: 25 mph

This survey conforms to Section 627 and 40802 of the California Vehicle Code and Section 2B.13 of the California MUTCD and recommends a speed limit appropriate to facilitate the safe and orderly movement of traffic.

Approved and Authorized for release by The City of Antioch Public Works:

Chris D. Knizel

Signed: Chris D. Kinzel, PE